

CONFIDENTIAL
Release Date 2-9-05



LEASE NO. BABBITT FEE

WELL NAME CLAYTON WILLIAMS ENERGY, INC. #1 BABBITT

LOCATION SW NW SEC 15 TWP 27 N RANGE 9 E FOOTAGE 1980' FNL & 660' FWL

ELEV 5,068' GR _____ KB SPUD DATE _____ STATUS D&A TOTAL
COMP. DATE 12/21/03 DEPTH 4350'

CONTRACTOR KEY ENERGY SERVICES, INC. ? FARMINGTON NM

CASING SIZE	DEPTH	CEMENT	LINER SIZE & DEPTH	DRILLED BY ROTARY
14"	40'			<input checked="" type="checkbox"/>
8 5/8"	1518'	860 SK		DRILLED BY CABLE TOOL
7"	3776'	50 SK		PRODUCTIVE RESERVOIR
				INITIAL PRODUCTION

[illegible]

ELECTRIC LOGS	PERFORATED INTERVALS	PROD. INTERVALS	SAMPLE LOG <input checked="" type="checkbox"/>
	3470-3480'		SAMPLE DESCRP. <input checked="" type="checkbox"/>
	3524-3535'		SAMPLE NO. 1900
			CORE ANALYSIS
			DSTs
REMARKS			APP. TO PLUG <input checked="" type="checkbox"/>
			PLUGGING REP. <input checked="" type="checkbox"/>
			COMP. REPORT <input checked="" type="checkbox"/>

WATER WELL ACCEPTED BY

BOND CO. RLI INSURANCE COMPANY

BOND AMT. \$10,000.00 CANCELLED 12-12-2002 DATE SEPTEMBER 25, 2003 ORGANIZATION REPORT YES 10/14/03

FILING RECEIPT 3118 LOC. PLAT YES WELL BOOK YES PLAT BOOK YES

API NO. 02-005-20034 DATE ISSUED 10/16/03 DEDICATION ALL - 641.6 ACRES

PERMIT NUMBER 914

(over)

WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG

DESIGNATE TYPE OF COMPLETION

New Well ☒ Temporary Abandon ☐ Work-Over ☐ Deepen ☐ Plug Back ☐ Same Reservoir ☐ Different Reservoir ☐ Oil ☐ Gas ☐ Dry ☒

DESCRIPTION OF WELL AND LEASE

Operator: Clayton Williams Energy, Inc. Address & Phone No. (432) 682-6324
6 Desta Dr., #3000, Midland, TX 79705
Federal, State or Indian Lease Number or name of lessor if fee lease: Babbitt Well Number: 1 Field & Reservoir: Wildcat
Location: Sec. 15, Twp 27N, R 9E County: Coconino
1980' FNL & 660' FWL
Sec. Township-Range or Block & Survey: Sec. 15, Twp 27N, R 9E

Date spudded: 10/31/03 Date total depth reached: 11/24/03 Date completed, ready to produce: N/A Elevation (DF, KB, RT or Gr.): 5068 feet Elevation of casing head flange: 5083 feet

Total depth: 4350' P.B.T.D.: Single, dual, or triple completion?: single If this is a dual or triple completion furnish separate report for each completion

Producing interval(s) for this completion: none Rotary tools used (interval): 0' - 4350' Cable tools used (interval):

Was this well directionally drilled?: no Was directional survey made?: no Was copy of directional survey filed?: no Date filed:

Type of electric or other logs run (check logs filed with the Commission): Comp. Sonic-Density-Neutron-Resistivity-Dipmeter-FMI, Mud logs Date filed: 0-14-04

CASING RECORD

Casing (report all strings set in well -- conductor, surface, intermediate, producing, etc.)

Purpose	Size hole drilled	Size casing set	Weight (lb./ft.)	Depth set	Sacks cement	Amount pulled
conductor	8 5/8"	5-14"		40'		-0-
surface	12-1/4"	8-5/8"	32#	1518'	860	-0-
intermediate	7-5/8"	7"	23#	3776'	50	-0-

TUBING RECORD

LINER RECORD

Size in.	Depth set ft.	Packer set at ft.	Size in.	Top ft.	Bottom ft.	Sacks cement	Screen (ft.)
----------	---------------	-------------------	----------	---------	------------	--------------	--------------

PERFORATION RECORD

ACID, SHOT, FRACTURE, CEMENT SQUEEZE RECORD

Number per ft.	Size & type	Depth interval	Amount & kind of material used	Depth interval
4	.41" Jet	3470'-80' & 3524'-35'	3000 gals. 10% NeFe HCL acid	3470-80' & 3524-35'

INITIAL PRODUCTION

Date of first production: none		Producing method (indicate if flowing, gas lift or pumping -- if pumping, show size & type of pump)					
Date of test	Hours tested	Choke size	Oil prod. during test bbls.	Gas prod. during test MCF	Water prod. during test bbls.	Oil gravity *API	
Tubing pressure	Casing pressure	Calculated rate of production per 24 hrs.	Oil bbls.	Gas MCF	Water bbls.	Gas - oil ratio	

Disposition of gas (state whether vented, used for fuel or sold)

CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the Production Superintendent of the Clayton Williams Energy, Inc. (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

January 14, 2004

Date

Signature Matt Swierc

Permit No. 00914

Mail completed form to:
Oil and Gas Program Administrator
Arizona Geological Survey
416 W. Congress, #100
Tucson, AZ 85701

STATE OF ARIZONA OIL & GAS CONSERVATION COMMISSION

Well Completion or Recompletion Report and Well Log

File One Copy

Form No. 4

DETAIL OF FORMATIONS PENETRATED

P/N 914

FORMATION	TOP	BOTTOM	DESCRIPTION *
Kaibab Limestone	surface	256'	White-pink sandstone, vfg-fg w/lt. gray limestone
Coconino Sandstone	256'	1264'	Lt. Pine-tan, med-cse grnd, rounded/frosted sandstone
Supai Group	1264'	2738'	
Wescogome Fm.	1264'	1569'	Red-orange, fg-vfg, l/p speckled gray, argill sandstone
Manacacha Fm.	1569'	1662'	Yellow-tan, vfg-mg, well sorted, sli cemented sandstone
Watahomigi Fm.	1662'	2738'	Lt gray-Lt orange siltstone grading down to interbedded limestone, mudstone, siltstone, argill dolomite & sandstone
Redwall Limestone	2738'	2948'	White-cream, micro-crystalline limestone w/chert
Temple Butte	2948'	3170'	Lt. Brown, tan, pink, f-microcrystalline dolomite w/interbedded siltstone
Muav Limestone	3170'	3358'	White-pink-Lt. Brown, microcrystalline dolomite & dolomite limestone
Bright Angel Shale	3358'	3391'	Lt.-M gray siltstone grading to basal shale
Tapeats Sandstone	3391'	3616'	Lt. gray-tan-white, cse-fg. Quartz sandstone
Sixty Mile Formation	3616'	3659'	Orange-clear, vfg-cse, interbedded sandstone w/siltstone
Chuar Group	3659'	4266'	
Kwagunt Fm			Lt-dk gray, blocky to platy, i/p prytic, non-calcareous shale
Walcott Member			
Precambrian Granite	4266'	4350'	Orange-red-clear qtzose, felospathic w/biotite, cse grained

* Show all important zones of porosity, detail of all cores, and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries.

INSTRUCTIONS:

Attach drillers log or other acceptable log of well.

This Well Completion or Recompletion report and well log shall be filed with the Oil and Gas Program Administrator, Arizona Geological Survey, 416 W. Congress #100, Tucson, AZ 85701 not later than thirty days after completion pursuant to A.A.C. R12-7-121.

To: Oil and Gas Administrator
Arizona Geological Survey
416 W. Congress, Suite 100
Tucson, Arizona 85701

This is to advise you that I accept the abandoned oil or gas exploration well, known as the Babbitt #1, located on the SW / NW (quarter-quarter) of Section 15, Township 27 N, Range 9 E, County of Coconino, Arizona, as a water well.

I accept full responsibility for the proper maintenance and use of the above well, including its final plugging, in compliance with rules of the Arizona Department of Water Resources (12 A.A.C. 15).

I understand that I am responsible for compliance with the provisions of the State Groundwater Code, A.R.S. Title 45, Ch. 2, Article 10, and with any applicable requirements of the federal government.

Signature

[Handwritten Signature]

Address

P.O. Box 520
Flagstaff, AZ 86002

* * * * *
***The above well, to the extent it was certified to me that said
State of ARIZONA well was plugged up to a 2,500 foot depth.
County of COCONINO

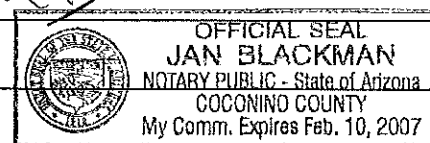
On this, the 9th day of FEBRUARY, 2004, before me JAN BLACKMAN, the undersigned officer, personally appeared WILLIAM C. CORDASCO, known to me (or satisfactorily proven) to be the person whose name is subscribed to the within instrument and acknowledged that WILLIAM C. CORDASCO executed the same for the purpose stated therein contained.

In witness whereof I hereunto set my hand and official seal.

Notary Public

My commission expires

[Handwritten Signature]



OIL & GAS CONSERVATION COMMISSION
WATER WELL ACCEPTANCE
FORM 26 - File one copy

Permit Number 914

RECEIVED
FEB 12 2004

PLUGGING RECORD

Operator Clayton Williams Energy, Inc.		Address & Phone number 6 Desta Dr., #3000, Midland, TX 79705 (432) 682-6324	
Federal, State, or Indian Lease No. or lessor's name if fee lease Babbitt	Well No. 1	Field & Reservoir Wildcat	
Location of Well 1980' FNL & 660' FWL		Sec - Twp - Rge 15-27N-9E	County Coconino
Application to drill this well was filed in name of Clayton Williams Energy, Inc.	Has this well ever produced oil or gas no	Character of well at completion (initial production): Oil (bbls/day) -0- Gas (MCF/day) -0- Dry? Yes	
Date plugged 12/21/2003	Total depth 4350'	Amount well producing when plugged: Oil (bbls/day) -0- Gas (MCF/day) -0- Water (bbls/day) 250+	
Name of each formation containing oil or gas. Indicate which formation open to wellbore at time of plugging	Fluid content of each formation	Depth interval of each formation	Size, kind & depth of plugs used. Indicate zones squeeze cemented, giving amount of cement
Chuar Group	N/A	3776-4350' (open hole)	Sqz open hole 3776'-4350' 100 sx below CICR @ 3673'
Tapeats Sand	Salt water	3470-80' & 3524'-35' (perfs)	Sqz w/31 sx. cmt below CICR @ 3402'
Tapeats Sands	Salt water	3282-3402'	19 sx. cmt. on top CICR

CASING RECORD

Size pipe	Put in well (ft.)	Pulled out (ft.)	Left in well (ft.)	Give depth and method of parting casing (shot, etc.)	Packers and shoes
8-5/8"	1518'	0'	1518'		
7"	3776'	0'	3776'		
				3673'	Cast Iron Cement Retainer (CICR)
				3402'	Cast Iron Cement Retainer (CICR)
Was well filled with heavy drilling mud, according to regulations?				Indicate deepest formation containing fresh water	

NAME AND ADDRESSES OF ADJACENT LEASE OPERATORS OR OWNERS OF THE SURFACE

Name	Address	Direction from this well

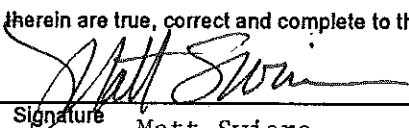
In addition to other information required on this form, if this well was plugged back for use as a fresh water well, give all pertinent details of plugging operations to base of fresh water sand, perforated interval to fresh water sand, name and address of surface owner, and attach letter from surface owner authorizing completion of this well as a water well and agreeing to assume full liability for any subsequent plugging which might be required.

Babbitt Ranches, LLC 113 N. San Francisco, Ste. 212 Flagstaff AZ 86002

Use reverse side for additional detail.

CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the Production Superintendent of the Clayton Williams Energy, Inc. (company) and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated herein are true, correct and complete to the best of my knowledge.

January 14, 2004
Date


Signature Matt Swierc

Permit No. 00914

Mail completed form to:
Oil and Gas Program Administrator
Arizona Geological Survey
416 W. Congress, #100
Tucson, AZ 85701

Form No. 10

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION

Plugging Record
File One Copy

APPLICATION TO PLUG AND ABANDON

FIELD Wildcat

OPERATOR Clayton Williams Energy, Inc. ADDRESS & PHONE Six Desta Drive, Suite 3000
Midland, TX 79705

LEASE NUMBER (Lessor's name if fee) Babbitt 432-682-6324
WELL NO. 1

LOCATION 1980' FNL & 660' FNL of Sec. 15, T-27-N, R-9-E
Coconino County, Arizona

TYPE OF WELL dry TOTAL DEPTH ±6600'
(Oil, Gas, or Dry)

ALLOWABLE (If Assigned) _____

LAST PRODUCTION TEST OIL _____ (Bbls.) WATER _____ (Bbls.)
GAS _____ (MCF) DATE OF TEST _____

PRODUCING HORIZON _____ PRODUCING FROM _____ TO _____

1. COMPLETE CASING RECORD:

8-5/8" 32# Set @ 1518'
cemented to surface with 860 sx. cement

2. FULL DETAILS OF PROPOSED PLAN OF WORK:

1. Set 100' cement plug at top of Chuar formation @ ±3650'.
2. Set 100' cement plug from 1568' - 1468'.
3. Set 100' cement plug from 450' - 350' in 8-5/8" surface casing.
4. Cut off casing below ground surface and set 10" sack cement plug.
5. Install 4" dry hole marker.
6. Restore location.

NOTE: If so requested by landowner, well may be turned over to landowner to convert
for use as water well.

DATE COMMENCING OPERATIONS _____

NAME OF PERSON DOING WORK Halliburton ADDRESS Farmington, NM

Matt Swiere
Signature
Matt Swiere, Production Superintendent
Title
432-688-3251
Address
Six Desta Drive, Ste. 3000, Midland, TX 79705
Date
11-06-2003

Mail two copies of completed form to:
Oil and Gas Program Administrator
Arizona Geological Survey
418 W. Congress #100
Tucson, AZ 85701

Date Approved 11-6-03

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION

By SL Raring

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION

Application to Plug and Abandon
File Two Copies

Form No. 9

Permit No. 914

STATE: ARIZONA
COUNTY: COCONINO
API: 02-005-20034
FIELD: WILDCAT
WELL CLASS: WF
WILLIAMS CLAYTN ENRG

15-27N-9E
C SW NW
1980 FNL 660 FWL SEC
STATUS: D&A

914

1 BABBITT

SPUD: 10/31/2003 COMP: 02/10/2004 RIG REL: 11/28/2003 ELEV: 5068 GR
ID: 4350 (11/24/2003) FM/ID: TAPEATS PBTD: 3775 DTD: 4350
CONTR: KEY ENERGY SERVICES INC RIG # 54 (VERTICAL)
PROJ DEPTH/FM: 7000 PRE CAMBRIAN PERMIT # 914 (ST APPD PMT: 10/16/2003) TARGET
OBJ: O&G

DTD: 4350; 3775 PB COMPDATE: 02/10/2004; D&A; NO CORES REPORTED , NO DST
REPORTED

LOCATION DATA: 6 MI S CAMERON, AZ 130 MI SW OF PRODUCTION FROM FIELDS ON THE
SOUTHERN FLANK OF THE PARADOX BASIN; ;

CASING: 8 5/8 IN @ 1525,7 IN @ 3775;

DRLG COMMENTS: WELL TURNED OVER TO LANDOWNER FOR WATERWELL;

(OVER)

© Copyright 2004 IHS Energy & its affiliated & subsidiary companies. Reproduction Prohibited

02/20/2004
CARD# 0001-AZ

WILLIAMS CLAYTN ENRG

API: 02-005-20034, 15-27N-9E

1 BABBITT

(CONTINUED)

PROD TEST(S): # 01 PERF (TAPEATS) 3170-3480 W/ 4 PF 3524-3534 W/ 4 PF; TSTD WATER
OPER ADD: 6 DESTA DR, STE 3000, MIDLAND, TX 79705, (432)682-6324;

© Copyright 2004 IHS Energy & its affiliated & subsidiary companies. Reproduction Prohibited

02/20/2004
CARD# 0001-AZ

CLAYTON WILLIAMS ENERGY, INC.

BABBITT #1

1980' FNL & 660' FWL

SECTION 15, T27N, R9E

COCONINO COUNTY, ARIZONA

GEOLOGIC WELL REPORT

by

JASON G. BLAKE, RPG, CPG

SUNBURST CONSULTING

411 TAMARISK DRIVE

BILLINGS, MONTANA

(406) 259-4124

SUNBURSTCONSULTING@COMPUSERVE.COM



WELL EVALUATION

INTRODUCTION:

The Clayton Williams Energy **Babbitt #1** was spud on 10/31/03. The test was located on a mapped surface anticline just southeast of the town of Gray Mountain, Arizona. The well was spud in the top of the Kaibab Formation. There may be a very thin veneer of basal Moenkopi on the surface as the ground is the characteristic red of the Moenkopi.

The primary objectives of the Babbitt #1 well were the Cambrian age Tapeats Sandstone, reported to possibly have been oil saturated in an old offset well drilled on the Gray Mountain structure in 1949, and any porosity zones in the Walcott and Carbon Butte members of the Kwagunt Formation of Pre-Cambrian age. An additional objective of this well was to collect bulk samples of the Walcott Member of the Kwagunt Formation for source rock analysis. Geologic supervision began at surface due to the wildcat nature of this test.

The hole was spud with a typical gel spud mud and drilled to 422 feet where circulation was lost. The well was drilled with no returns from 422 feet to 548 feet. From 548 feet, the well was drilled with air/air mist. An air hammer bit system was used successfully with excellent penetration rates down to 3342 feet. Due to the use of the air hammer in the upper portion of the hole, the samples were pulverized, and the fines fractions of the samples were effectively washed away during the drilling process. At 3342 feet the well was making too much water for the air hammer to function properly, and a conventional bottom hole assembly was used to drill from 3342 feet to 3776 feet.

Due to the increased water flows from the Paleozoic carbonates, plus the desire to protect and better analyze the Pre-Cambrian section, an intermediate string of 7" flush joint casing was run to 3774 feet. The hole was drilled with air to 3926 feet, at which point the hole started making water once again. Between 3926 feet and 3932 feet, two cement squeeze jobs below retainers were pumped, but to no avail. The hole still made water after each squeeze job. The interval from 3932 feet to 3943 feet was drilled with the conventional bit used to drill the cement and retainer from the 2nd squeeze job. From 3943 feet to 3971 feet, the air hammer was again used, but with slow penetration rates and a considerable influx of water. Due to the water influx, the air hammer became counter-productive, and a conventional bottom hole assembly was used to drill from 3971 feet to total depth. Water production continued to increase as more sand intervals were penetrated in the Pre-Cambrian section. The Babbitt #1 reached a total measured depth of 3450 feet on November 23, 2003 in granite of suspected Pre-Cambrian age.

BRIEF FORMATION DESCRIPTIONS AND SHOWS:

The following are brief descriptions of the lithologies encountered while drilling. For detailed lithologic descriptions, the reader should refer to either the following section or the accompanying mud log.

Kaibab Formation

The Kaibab Formation in this area was composed of sandstone as opposed to the more typical light gray limestone seen in other areas of the Kaibab Plateau. The sandstone was salmon to white to pink in color, very fine to fine grained, sub rounded to sub angular and well sorted. It was hard and brittle grading to a quartzite in part, to slightly friable in part, and was well cemented with dolomite cement. It appeared to have minor matrix porosity, but did display slight vuggy porosity in places. Common to abundant white to clear chert was also present through the section.

Coconino Sandstone 255' (4827' datum)

The upper portion of the Coconino section was composed primarily of unconsolidated sand. It was light pink to pinkish tan in color, graded from medium to coarse to very coarse grained, to occasionally fine grained and the grains were well rounded and frosted, reflecting the eolian depositional environment. Portions of this interval also appeared to have minor iron oxide staining between grains. The lower 50 to 100 feet of the section appeared to become slightly argillaceous and displayed scattered dark gray lithic grains, giving the sandstone a slight salt and pepper appearance.

SUPAI GROUP-Wescogome Formation 1263' (3819' datum)

The Wescogome Formation of the Supai Group was composed almost exclusively of argillaceous sandstone grading to siltstone. These sandstones and siltstones were red to orange in color, fine to very fine grained and speckled dark gray in part with quartz and lithic grains. The section appeared very argillaceous with abundant red clay fill and was slightly calcareous.

Manakocha Formation 1646' (3436' datum)

The top of the Manakocha Formation was identified at an abrupt color change of the drilling foam from the reds seen above to a distinct yellow color. The section was composed primarily of sandstone that was yellow to tan to light orange in color. They were very fine to fine to medium grained, sub rounded, moderately well sorted with possible quartz overgrowth cement and slight calcite cement. The sandstones appeared to be interbedded with red siltstone grading to shale. The samples were pulverized due to the air hammer bit, causing the shale component of the rock to be washed out as red clay while cleaning the samples.

Watahomigi Formation 1678' (3404' datum)

The upper 130 feet of the Watahomigi Formation was characterized by an abrupt color change. This section was composed of a light gray to very light orange slightly calcareous siltstone. Grain sizes ranged from fine to very fine, were sub angular to sub rounded and well sorted. Abundant light gray clay washed from the samples when cleaning.

The lower portion of the formation from 1808 feet to the top of the Redwall at 2756 feet displayed interbedded siltstone, mudstone, limestone, argillaceous dolomite and sandstone. The primary constituent of the interval was red brown to orange siltstone that was very fine grained, platy to sub platy in part to blocky, slightly to moderately firm, sandy and moderately calcareous. The siltstone graded more into mudstone near the base of the section. Thin limestone interbeds were present throughout the section, and were light orange to occasionally white, microcrystalline, dense and argillaceous in part. The sandstone stringers seen through the section ranged from fine to very fine to medium grained, were sub-rounded to sub-angular, moderately well sorted and appeared to fairly well cemented with calcite.

It should be noted that as this section was drilled with an air hammer with the well making water, the lithology might be composed of a greater amount of claystone and shale than that noted on the log. Only the more competent components of the rock were seen at the surface as the finer constituents were easily washed away.

Redwall Limestone 2756' (2326' datum)

The top of the Redwall was marked by an abrupt color change and the disappearance of the siltstone and mudstone seen in the preceding sections. The interval was composed almost entirely of a white to cream to pale orange limestone that was micro- to crypto-crystalline, dense and moderately hard to hard in part. Common white to cream colored opaque chert was seen in the middle portion of the section. Spotty pale yellow green mineral fluorescence was seen through the section, but no shows were noted.

Temple Butte Dolomite 2964' (2118' datum)

The Temple Butte section was composed primarily of light brown to tan to pink to occasionally white dolomite that was fine to microcrystalline, dense and locally sandy. Thin interbedded red-brown siltstones were observed through the section. The siltstone beds were cemented with dolomite cement and were occasionally sandy in nature. Common to abundant yellow mineral fluorescence from the dolomite was seen through the interval, but no shows were noted.

Muav Limestone 3127' (1955' datum)

The Muav section was composed of a series of carbonate rocks grading from dolomite to argillaceous dolomite to dolomitic limestone. A slight color change was noted from the more reddish colors seen in the Temple Butte to lighter colors in the Muav. In addition, a change in the rate of penetration curve was noted at the top of the section. This interval was white to pink to red brown to orange in color, microcrystalline, dense and moderately hard and appeared to be fairly homogenous. The section was dolomitic near the top, and became more calcareous toward the base, bottoming in what was logged as a dolomitic limestone. Thin interbeds of gray green to green to light brown shale were noted near basal transition into the underlying Bright Angel Shale. A few minor shows, consisting of dull yellow gold fluorescence with a slow streaming cut were seen near the base of the section. These shows were associated with a light to medium brown, somewhat sucrosic dolomite with fair inter-crystalline porosity development. No staining was recognized, but may have been masked by the brown color of the dolomite.

Bright Angel Shale 3352' (1730' datum)

The Bright Angel Shale was not very well represented in this well as the samples showed only a moderate increase in siltstone. The siltstone was light to medium gray, to occasionally red brown, platy to blocky, slightly to moderately hard and very slightly to non-calcareous. It also displayed a slightly waxy texture in part, possibly grading into shale at the base.

Tapeats Sandstone 3386' (1696' datum)

The Tapeats section was a fairly homogenous section of quartz sandstone that was clear to light gray to tan to white in part, varied from coarse to fine grained, with medium to coarse grain sizes predominating. The grains were typically angular to sub angular, and moderately sorted. The samples through this section were almost exclusively unconsolidated sand grains. The sand was predominantly quartz, with a very minor constituent of feldspar. No shows were noted through the Tapeats section.

Sixtymile Formation 3622' (1460' datum)

It is questionable as to whether this interval should be classified as the Sixtymile Formation, or simply as the basal portion of the overlying Tapeats Sandstone. The interval was characterized by interbedded very fine to coarse-grained sandstone, siltstone and shale. The sandstone was orange to clear, poorly sorted and was composed of unconsolidated angular sand grains and was slightly micaceous. The siltstone and shale in the interval was red brown to dark gray, locally calcareous to dolomitic with calcite stringers. Common red mud washed from the samples in this interval.

CHUAR GROUP-Walcott Member of the Kwagunt Formation 3662' (1420' datum)

The upper portion of the Walcott from 3662 feet to 3910 feet was composed of a fairly homogenous section of light to dark gray shale, locally red to purple, that was sub blocky to sub platy, moderately soft with a silty to slightly waxy appearance. It was also slightly to moderately pyritic in part and non calcareous. There also appeared to be a fair amount of dark gray carbonaceous material present as streaks or laminations within the gray and gray green shale.

From 3910 feet to 3940 feet, an interval was drilled displaying an abundance of red brown to pink to white dolomite that was medium to coarse crystalline, dense and hard. The samples had a rubbly or conglomeratic appearance, and the well started making water as soon as this interval was penetrated.

Below the dolomitic interval, the lithology of the well changed dramatically to oxidized sandstone, siltstone and shale. The sandstone was orange to clear to occasionally white, predominately fine grained with occasional medium and coarse sand grains, sub rounded to sub angular and moderately well sorted. It appeared to be cemented primarily with silica cement and secondary iron oxide cement. Red iron oxide staining was present between many of the grains. The siltstone and shale through this interval was red brown to dark brown in color, blocky, moderately firm, sandy in part and micaceous in part. It displayed a laminated appearance in places and was non calcareous. The siltstone in the lowermost portion of the interval displayed an increase in clay content, grading into a claystone or mudstone in part from 4220 feet to 4268 feet.

GRANITE 4268' (814' datum)

The granite penetrated at the bottom of the hole was orange to red to clear to black with quartz, feldspar and biotite phenocrysts. The uppermost portion of the section was moderately weathered with the feldspar weathered to a slightly calcareous white clay, and the biotite partially altered to chlorite. The interval became less weathered with depth. The sample at total depth displayed an abundance of biotite phenocrysts. Very slight gas shows (9-12 units total gas) in the form of downtime gas and trip gasses were observed while drilling the granite section.

DISCUSSION:

The Babbitt #1 was drilled to test the potential of the Gray Mountain anticline, an untested surface mapped feature. The Lockhart-#1 Babbitt well, drilled in 1949 and located in section 21, Township 27 North, Range 9 East, is the only other well drilled on this structural feature and was used for the structural comparison. The Lockhart well encountered severe lost circulation problems, and it was felt they didn't adequately test the potential of the Gray Mountain structure. It should be noted, that the tops for the Lockhart well are based only on an old Amstrat lithology log with questionable accuracy, so the structural comparison likewise is not overly accurate. The primary objective for the Babbitt #1 was the Cambrian age Tapeats Sandstone, reported to possibly have displayed saturated oil in the Lockhart well. Secondary objectives identified by Clayton Williams included the Walcott and Carbon Butte Members of the Kwagunt Formation of Pre-Cambrian age, but the well drilled into granite prior to penetrating the Carbon Butte Formation. Additionally, bulk samples were collected through the Walcott Member for source rock analysis.

The Kaibab Formation in this well was principally a dolomitic sandstone facies as opposed to the more marine limestone facies common in other areas of Northern Arizona. No evidence of fossils were seen in the samples, but due to being pulverized by the air hammer, may not have been recognizable if present. Some vuggy porosity was observed, indicating secondary porosity development.

The Toroweap Formation, the Hermit Shale and the uppermost formation of the Supai Group (Esplanade Sandstone) were missing from the section at this location. The Toroweap and Hermit Shale both thin to the southeast from the section exposed in the Grand Canyon, so very well may not have been deposited as far south as the Babbitt location. An unconformity is present at the top of the Supai Group, so the Esplanade may have been eroded off prior to the deposition of the overlying Coconino Sandstone.

As a whole, the complete Supai section was very red in color, indicating an oxidizing environment of deposition. In addition, the Manacacha Formation appeared to be composed, in a rough sense, of a series of coarsening upwards sequences. The underlying Watahomigi Formation was composed of a series of interbedded sandstone, siltstone and shale. Many of the sandstone intervals through this section exhibited excellent porosity development on the electric logs, but had no associated shows. If these potential reservoirs could be found on a structure that has been sourced, and with an intact seal, they would be excellent potential reservoirs.

The Redwall is equivalent to the highly productive Leadville Formation of the Paradox Basin to the northeast, and displayed zones with porosity development on the density-neutron log, but was definitely wet when drilled. While the Leadville is overlain by the salt and shale sequences of the Paradox Formation, forming an excellent seal, the Redwall in this area is overlain by brittle siltstones and sandstones of the lower Supai Group that probably don't form a viable seal. For this reason, the Redwall is most likely not a good exploration target.

The Tapeats Sandstone appeared to be composed of 2 or 3 coarsening upwards sequences, possibly reflecting pulses of uplift in the source area. In addition, the FMI log shows a series of shallow crossbedded stratifications that are peneplaned by each successive bedset. The section displayed fairly consistent crossplot porosity of about 14%, with an average resistivity of about 60 to 70 ohms. The samples through the section were composed predominantly of unconsolidated sand grains, indicating the section probably has good to excellent permeability. No shows were noted from the Tapeats when drilled, and the volume of water being produced while drilling appeared to increase through the section.

The upper portion of the Walcott was gray to dark gray to green, indicating a reducing environment of deposition, with resultant preservation of the organic content of the shale. Bulk samples were collected for source rock analysis.

The lower portion of the Pre-Cambrian sedimentary section did not display the expected lithology, and was composed primarily of oxidized sandstone, siltstone and earthy shale. The section looked very similar to the Paleozoic age Supai Group. Bulk samples were also collected through this interval, and thought should be given to age dating to attempt to locate the interval within the Pre-Cambrian section.

Based on log character, it appears a fault may have been cut between 3864 feet and 3494 feet, just above where the rubblized dolomite was encountered in the Pre-Cambrian section. This may represent one the of block faults in the Chuar Basin, and the Babbitt #1 may have crossed from the Chuar-Walcott section into a much lower portion of the Pre-Cambrian sedimentary section, possibly into the Unkar-Solomon Temple Member or Escalante Creek Member above the granitic basement.

CONCLUSIONS:

A series of excellent reservoirs were present in the Supai Group as well as in the Tapeats, but both appeared wet with no hydrocarbon potential. The sandstones in the Walcott (or Unkar?) also appeared to be wet with no associated hydrocarbon potential. Of interest was a slight amount of gas seen in the granite below the Pre-Cambrian sedimentary section. These very minor gas shows were seen as downtime or trip gas of 9 to 12 units total, and appeared to be composed of only C₁.

Block faulting with subsequent rotation and erosion of the fault blocks within the Chuar Basin likely resulted in areas with missing intervals within the Pre-Cambrian sedimentary section. It is quite possible the Babbitt #1 could just have easily penetrated a portion of the Unkar above the granite basement instead of the Chuar as logged. As there are no offset lithology logs and/or measured sections available for the Pre-Cambrian in this area, it is impossible to tell what formation the Babbitt #1 penetrated without definitive age dating. Even with age dating, it may be extremely difficult to associate definitive formation names with the section drilled below the Tapeats.

The Paleozoic section in this area may be too well lithified, and therefore too brittle to form viable seals for the reservoirs. In addition, even if the analysis of the source rock potential in the Chuar Group indicates they are high enough in organic content to be a viable source rock, they may not have been subjected to sufficient burial and or heat flow to produce movable hydrocarbons after formation of the Gray Mountain structure. Based on the production of fresh water throughout the section drilled in the Babbitt #1, it appears that the petroleum system in this part of Arizona may be lacking effective seals over the potential reservoirs. Exploration efforts in this part of Arizona, and those specifically targeting the Pre-Cambrian Chuar should possibly look for older structures and/or stratigraphic traps that were present prior to deposition of the Penn-Perm shaly section so as to create viable seals.

Based on log evaluation and the lack of shows while drilling the Babbitt #1, it appears the well has no commercial hydrocarbon potential. However, log evaluation at Schlumberger's computing center suggests the Tapeats may have some potential, so the decision was made to plug back to the 7" casing and test the Tapeats section through perforations prior to well abandonment.

Jason G. Blake, CPG, RPG
Consulting Geologist
Sunburst Consulting, Inc.

WELL SUMMARY

OPERATOR: CLAYTON WILLIAMS ENERGY, INC.

NAME: BABBITT #1

LOCATION: 1980' FNL & 660' FWL, SEC 15, T27N, R9E

COUNTY/STATE: COCONINO COUNTY, ARIZONA

ELEVATION: GL 5068', KB 5082'

SPUD DATE: 10/31/03

COMPLETION DATE: 11/24/03

DRILLING ENGINEER: MIKE STEWARD, SIERRA ENGINEERING

WELLSITE GEOLOGY: JASON BLAKE, SUNBURST CONSULTING

GAS DETECTION: SUNBURST CONSULTING, INC.
LOGGERS: JASON BLAKE, TOM GRIGGS

CONTRACTOR: KEY DRILLING COMPANY, RIG #54
TOOL PUSHERS: JOE COBERLY, JOE EMERSON

HOLE SIZE: 12 1/4" to 1520', 7 7/8" 1520' to 3776', 6 1/4" 3776'-4350'

CASING RECORD: 8 5/8" SURFACE CASING TO 1520' W 860 SACKS + TOP JOB
7" INTERMEDIATE CASING SET TO 3776' W 50 SACKS

DRILLING MUD: N/A; DRILLED PREDOMINANTLY WITH AIR

AIR COMPRESSION: BILL VICKERS, JESSE MARTINEZ, WEATHERFORD

ELECTRIC LOGS: SCHLUMBERGER
RUN 1: DIL, DENS/NEUT, SONIC, CMR, FMT, ECS, NGS, DIPMETER

SAMPLES 10' DRY CUT SAMPLES SURFACE TO TOTAL DEPTH
10' WET CUT SAMPLES SAVED 3350'-TOTAL DEPTH

TOTAL DEPTH: DRILLER-4350'; LOGGER-4349'

DST'S/CORES: NONE

DRILLING CHRONOLOGY

CLAYTON WILLIAMS ENERGY, INC.

BABBITT #1

DATE	DEPTH	DAILY	ACTIVITY
10/31/03	---	6'	Sunburst geologic consulting with gas detection on location and rigged up at 1930 hours. PU NB#1 and BHA. Spud well at 2330 hours 10/31/03. Drill surface hole 53'-59'.
11/1/03	59'	417'	Drill 59'-422'. Lost returns, mix LCM. Regain returns and drill (bypassing shaker) 422'-476'. No returns, mix mud to build volume. Blow air down drillpipe-plugged the bit. TOH & mix volume-20% LCM.
11/2/03	476'	69'	Mix mud, TIH & drill blind 479'-548'. Build mud volume and wait on parts for air drilling. TOH & LD bit #1, bit sub & drilling jars. Rig up for air drilling.
11/3/03	548'	491'	Rig up for air drilling. TIH, unload hole and resume drilling w air and air hammer at 1300 hours. Drill 548'-1039'. Dropped survey tool. TOH to retrieve tool.
11/4/03	1039'	481'	TOH to retrieve survey tool. TIH & drill 1039'-1520'. Circ out and TOH. TIH to 500' and load hole.
11/5/03	1520'	0'	TOH & LD 8" DC. Rig up casing crew and run 35 jts, 8 5/8", 32# casing to 1520'. Cement w 500 sx 50/50 Poz & tail w 360 sx. WOC. Run temp survey-top of cem @ 250'. Cement top job. Nipple up BOP.
11/6/03	1520'	577'	Nipple up BOP. Test BOP & choke. PU & test hammer & TIH. Unload hole, drill cement & shoe & resume making hole at 1100 hours. Drill 1520'-2097'.
11/7/03	2097'	1007'	Drill 2097'-3104'.
11/8/03	3104'	269'	Drill 3104'-3342'. Pull 10 stand short trip. Run survey. TOH & LD air hammer. PU NB #4, re-configure blooie line, and trip in hole. Resume drilling at 2240 hours. Drill 3342'-3373'.
11/9/03	3373'	340'	Drill 3373'-3443. Pull off bottom and pump away reserve pit volume. Drill 3443'-3713'.
11/10/03	3713'	63'	Drill 3713'-3776'. Pull 10 stands off bottom and pump away reserve pit volume. TIH & circ clean. Strap pipe out of hole to BHA & TIH. Condition hole and TOH for logs. Rig up and run Schlumberger wireline logs.
11/11/03	3776'	0'	Complete wireline logs. Rig down Schlumberger & wait on casing.
11/12/03	3776'	0'	Trip in BHA & wait on casing. Unload casing, TIH and circ clean. TOH and lay down 4 1/2" DP & collars.
11/13/03	3776'	0'	Rig up and run 7", 23#, S-95 flush joint casing. Land at 3774' & cement with 50 sacks 50/50 poz/mix. WOC. Cut off casing and nipple up BOP. Wait on 3 1/2" drill pipe.

DRILLING CHRONOLOGY (CONT.)

CLAYTON WILLIAMS ENERGY, INC.

BABBITT #1

DATE	DEPTH	DAILY	ACTIVITY
11/14/03	3776'	0'	Unload and strap 3 ½" drill pipe. Pick up air hamme, NB #5 & BHA. Pick up 3½" drill pipe & TIH to float. Drill on float.
11/15/03	3776'	150'	Unable to drill float. TOH to inspect air hammer & bit. PU new air hammer & TIH. Drill float & shoe-no cement in pipe. Resume drilling new hole at 1430 hours. Drill 3776'-3926'. Hole making water. TOH and wait on tools.
11/16/03	3926'	0'	Pick up cement retainer and trip in hole. Set retainer and pump cement squeeze. Wait on cement. TIH w bit #6. Tag cement at 3680'. Drill cement.
11/17/03	3926'	6'	Drill cement & retainer. Drill cement to 3920'. TOH and PU air hammer and bit #5. TIH & drill new hole 3926'-3932'. Hole making water again. Unload hole.
11/18/03	3932'	0'	TOH & wait on tools/cement. PU retainer, TIH & set at 3710'. Squeeze w 31 bbls cement & TOH. PU NB#8 & TIH.
11/19/03	3932'	11'	TIH & tag cement @ 3573'. Begin drilling cement @ 0430 hours. Drill cement & retainer. Drill to 3932'-3943'. TOH to PU air hammer.
11/20/03	3943'	48'	PU air hammer & bit #5 and TIH. Resume drilling @ 0430 hours. Drill 3943'-3971'. Circ out, run survey & TOH. PU NB#10 & TIH. Run surveys on trip in. Resume drilling at 2200 hours. Drill 3971'-3991'.
11/21/03	3991'	64'	Drill 3991'-4055'. TOH to pick up hole reamers and NB #11. TIH & ream 3930'-4055'.
11/22/03	4055'	238'	Resume drilling at 0100 hours. Drill 4055'-4293'. Circ out hole and TOH. PU NB#12 & TIH.
11/23/03	4293'	57'	TIH, blow hole down and resume drilling at 1030 hours. Drill 4293'-4350'. Total depth reached at 1330 hours. Circ hole, run survey, pull 14 stand short trip. Condition hole for logs and TOH.
11/24/03	4350'	0'	Run Schlumberger electric logs. Sunburst Consulting released at 2400 hours.

BIT RECORD

OPERATOR: CLAYTON WILLIAMS ENERGY, INC.

WELL NAME: BABBITT #1

RUN	SIZE	MAKE	TYPE	SERIAL #	IN	OUT	FTG	HRS	FT/HR
1	12 ¼"	VAREL	CH1GMS	191389	54'	548'	494'	10.5	47.05
2	12 ¼"	HALCO	C623G	MB-12306	548'	1520'	972'	17.5	55.54
3	7 7/8"	HALCO	C6736	MB-78071	1520'	3342'	1822'	40.25	45.26
4	7 7/8"	HTC	HR-30C	5037854	3342'	3776'	434'	24.5	17.71
5	6 ¼"	HALCO	CV462	MB-61003	3776'	3926'	150'	4.5	33.33
6	6 ¼"	VAREL	L117MPS	174776	3680'	3920'	drilled	cement	
7 (RR#5)	6 ¼"	HALCO	CV462	MB-61003	3926'	3932'	6'	.5	12.0
8	6 ¼"	VAREL	L2	836837	3573' (drilled)	3943' cement)	11'	1.0	11.0
9 (RR#5)	6 ¼"	HALCO	CV462	MB-61003	3943'	3971'	28'	2.5	11.2
10	6 ¼"	JZ	HA547	21456	3971'	4055'	84'	11.0	7.64
11	6 ¼"	STC	XR40YPS	MN6355	4055'	4293'	238'	17.0	14.0
12	6 ¼"	HTC	STR-50R	5040479	4293'	4350'	57'	3.5	16.28

DEVIATION RECORD

OPERATOR: CLAYTON WILLIAMS ENERGY, INC.

WELL NAME: BABBITT #1

DEPTH	ANGLE	AZIM	DEPTH	ANGLE	AZIM	DEPTH	ANGLE	AZIM	DEPTH	ANGLE	AZIM
134'	¼°		999'	2°		3302'	½°		3964'	6 ½°	
408'	2°		1287'	1 ¼°		3705'	½°		4023'	6 ½°	
508'	3°		1807'	¾°		3739'	1 ¾°		4089'	6°	
611'	2 ¾°		2247'	¾°		3764'	2 ¼°		4250'	5 ¾°	
778'	2 ¼°		2744'	1°		3858'	6 ½°		4350'	6°	

MUD REPORT

OPERATOR: CLAYTON WILLIAMS ENERGY, INC.

WELL NAME: BABBITT #1

DATE	DEPTH	WT	VIS	PV	YLD	GEL	PH	WL	CK	CHL	CA	SD	SOL	WTR
11/1/03	100'	8.5	38	NO	CHK-	-SPUD	MUD							
11/2/03	548'	8.7	55	NO	CHK-	-SPUD	MUD							
11/3/03	548'	DRILL	WITH	AIR	HAMR									
11/4/03	1039'	DRILL	WITH	AIR	HAMR									
11/5/03	1520'	RUN	SURF	CSG										
11/6/03	1550'	DRILL	WITH	AIR	HAMR	& FOAM								
11/7/03	2350'	DRILL	WITH	AIR	HAMR	& FOAM								
11/8/03	3263'	DRILL	WITH	AIR	HAMR	& FOAM								
11/9/03	3400'	DRILL	WITH	AIR	&	FOAM								
11/10/03	3750'	DRILL	WITH	AIR	&	FOAM								
11/11-13/03	3776'	RUN	7"	INTR	-MED.	CASING								
11/14/03	3776'	DRILL	WITH	AIR	HAMR									
11/15/03	3776'	DRILL	WITH	AIR	HAMR									
11/16/03	3926'	CEM	SQZ	JOB										
11/17/03	3926'	DRILL	CEM											
11/18/03	3932'	DRILL	WITH	AIR	HAMR									
11/19/03	3932'	DRILL	CEM											
11/20/03	3946'	DRILL	WITH	AIR	HAMR	& FOAM								
11/21/03	4025'	DRILL	WITH	AIR	&	FOAM								
11/22/03	4100'	DRILL	WITH	AIR	&	FOAM								
11/23/03	4200'	DRILL	WITH	AIR	&	FOAM								

FORMATION TOPS

OPERATOR: CLAYTON WILLIAMS ENERGY, INC.
WELL NAME: BABBITT #1

FORMATION NAME	SAMPLES		E-LOG		STRUCTURAL COMPARISON: LOCKHART- BABBITT #1 21-T27N-R9E
	MEASURED DEPTH	DATUM	MEASURED DEPTH	DATUM	
KAIBAB LS	SURF	5082	SURF	5082	-108
COCONINO SS	255'	4827	256'	4826	
SUPAI GROUP Wescogome Fm	1263'	3819	1264'	3513	
Manacacha Fm	1566'	3516	1569'	3513	
Watahomigi Fm	1678'	3404	1662'	3420	
REDWALL LS	2756'	2326	2738'	2344	-177
TEMPLE BUTTE	2964'	2118	2948'	2134	
MUAV LS	3126'	1956	3170'?	1912	
BRIGHT ANGLE SHL	3352'	1730	3358'	1724	-97
TAPEATS SS	3386'	1696	3391'	1691	-127
SIXTYMILE FM	3622'	1460	3616'	1466	N/A
CHUAR GROUP	3662'	1420'	3659'	1423	N/A
KWAGUNT FM Wolcott Member	3662'	1420	3659'	1423	N/A
GRANITE	4268'	814	4266'	816	N/A

SAMPLE DESCRIPTIONS

OPERATOR: CLAYTON WILLIAMS, INC.

WELL NAME: BABBITT #1

50-70 SS, lt salm-wht ip, fn-vfn grn, sb rnd, md wl srt, occ crs-vcrs qtz grns, calc/dolo cem, scat wht CHT, NFSOC

70-90 SS, lt salm-wht, fn-vfn grn, sb rnd, md wl srt, rr-occ md grn qtz, loc vugs, calc/dolo cem, scat wht-clr CHT, NFSOC

90-110 SS, wht- lt salm, fn-vfn grn, sb rnd, md wl srt, occ md-v crs grn qtz, calc/dolo cem, com orng-wht CHT, NFSOC

110-30 SS, lt pnk-wht, vfn-fn grn, sb rnd, md wl srt, md wl cem w dolo cem, scat-com wht-clr CHT, NFSOC

130-50 SS, salm, fn grn, sb ang-sb rnd, md wl srt, sl fri ip, md cem w dolo cem, rr wht CHT aa, NFSOC

150-70 SS, salm-wht, vfn-fn grn, sb rnd-sb ang, wl srt, hd-britt to sl fri ip, wl cem w dolo cem, abund wht CHT, prob fract, scat vug por, NFSOC

170-90 SS aa, salm-wht, vfn-fn grn, sb rnd-sb ang, wl srt, hd-britt to sl fri ip, vhd-qtaitic ip, wl cem w dolo cem, com-abund wht CHT, prob fract, scat vug por, NFSOC

190-210 SS, salm-wht-bcm pnk ip, vfn-fn grn, sb rnd-sb ang, wl srt, hd-britt to sl fri ip, wl cem w dolo cem, qtzitic ip, com wht CHT, NFSOC

210-30 SS, salm-pnk-wht ip, vfn-fn grn, hd-britt, sb rnd, wl srt, dolo cem aa, scat pcs dk gr QTZITE grd to CHT, hd, non calc, NFSOC

230-50 SS grd to QTZITE ip aa, salm-pnk-wht ip, vfn-fn grn, hd-britt, sb rnd, wl srt, dolo cem aa, scat pcs dk gr QTZITE grd to CHT, hd, non calc, NFSOC

COCONINO SANDSTONE 255 (4827)

250-70 SS, pnk-salm aa, fn-vgn grn, dolo cem + SS, wht-clr, crs-vcrs grn-occ fn-md grn, wl rnd, md srt, abund unconsol qtz grns, NFSOC

270-90 SS, wht-clr, crs-vcrs grn-occ fn-md grn, wl rnd, md srt, abund unconsol qtz grns, frost, decr SS, pnk-salm aa, fn-vgn grn, dolo cem, NFSOC

290-310 SS, lt pnksh-tn, fn-md-occ vcrrs grn, wl rnd, md srt, fri, non calc, frost, com-abund unconsol qtz grns, scat wht CHT, NFSOC

310-30 SS, lt pnksh-tn aa, pred fn-md grn-occ crs grn, wl rnd, md srt, fri, frost, non calc, com-abund lse qtz grns, scat wht cht/qtzite, NFSOC

330-50 SS, lt pnk-pnksh tn, bcm pred crs grn, wl rnd, unconsol, frost, md srt, non calc, NFSOC

350-70 SS, lt pnksh-tn, pred fn-md grn-occ crs grn, wl rnd, md srt, fri, frost, non calc, abund lse qtz grns, abund wht non-calc cly/tripl CHT?, NFSOC

370-90 SS, lt pnk orng-clr, fn-md grn, wl rnd, frost, md wl srd, pred unconsol qtz grns, pos sl Fe stn, NFSOC

390-410 SS aa, lt pnk orng-clr, fn-md grn, wl rnd, frost, md wl srd, pred unconsol qtz grns, pos sl Fe stn, NFSOC

410-30SS, lt salm-clr, md grn, wl rnd, md wl srt, frost, unconsol qtz grns, pos Fe stn, NFSOC

430-550 LOST CIRCULATION-NO SAMPLES RECOVERED

550-70 SS, lt pnksh tn-clr, fn-md grn, md wl-sl rnd, unconsol qtz grns, frost, pos Fe stn, NFSOC

570-90 SS aa, lt pnksh tn-clr, fn-md grn, md wl-sl rnd, unconsol qtz grns, frost, pos Fe stn, NFSOC

590-610 SS aa, lt pnksh tn-clr-occ wht, fn-occ md grn, md wl srt, pred unconsol qtz grns, frost, sl calc ip, pos qtz ovrgth cem ip, poss Fe stn aa, NFSOC

610-30 SS, lt pnksh tn-clr, fn-md grn, md wl-sl rnd, unconsol qtz grns, frost, pos Fe stn, NFSOC

630-50 SS, lt pnksh tn-clr-occ wht, fn-occ md grn, md wl srt, frst grns, pred unconsol qtz grns, scat cons w sl calc cem ip, pos qtz ovrgth cem ip, poss Fe stn/cmt, NFSOC

650-70 SS aa, lt pnksh tn-clr, fn-md grn, md wl-sl rnd, unconsol qtz grns, frost, pos Fe stn, NFSOC

670-90 SS aa, lt pnksh tn-clr-occ wht, fn-occ md grn, md wl srt, pred unconsol qtz grns, frost, sl calc ip, pos qtz ovrgth cem ip, poss Fe stn aa, NFSOC

690-710 SS, lt pnksh tn-clr, fn-md grn, md wl-sl rnd, unconsol qtz grns, frost, pos Fe stn, NFSOC

710-30 SS aa, lt pnksh tn-clr-occ wht, fn-occ md grn, md wl srt, pred unconsol qtz grns, frost, non calc, poss Fe stn aa, NFSOC

730-50 SS aa, lt pnksh-clr-occ wht, fn-occ md grn, md wl srt, pred unconsol qtz grns, frost, non calc, pos qtz ovrgrth cem ip, poss Fe stn aa, NFSOC

750-70 SS aa, lt pnksh tn-clr-occ wht, fn-occ md grn, md wl srt, pred unconsol qtz grns, frost, loc sl calc, poss Fe stn, NFSOC

770-90 SS aa, lt pnksh tn-clr, fn-md grn, md wl-sl rnd, unconsol qtz grns, frost, mnrcalc cmt, pos Fe stn, NFSOC

790-810 SS, lt pnksh tn-clr, fn-md grn, md wl-sl rnd, unconsol qtz grns, frost, pos qtz ovrgrth cem, pos Fe stn, NFSOC

810-30 SS aa, lt pnksh tn-clr, md-fn grn, md wl-sl rnd, unconsol qtz grns, frost, loc hd calc cmt, pos Fe stn, NFSOC

830-50 SS aa, lt pnksh tn-clr, md-fn grn, md wl-sl rnd, unconsol qtz grns, frost, pos qtz ovrgrth cem, pos Fe stn, NFSOC

850-70 SS aa, lt pnksh tn-clr, md-fn grn, unconsol qtz, md wl-sl rnd, grns, frost, pos Fe stn, NFSOC

870-90 SS aa, lt pnksh tn-clr, fn-md grn, frost, unconsol qtz grns, md wl-sl rnd, loc mnrcalc cmt, loc hd strngrs, pos Fe stn, NFSOC

890-910 SS aa, lt pnksh tn-clr, md-fn grn, md wl-sl rnd, unconsol qtz grns, frost, loc mnrcalc cmt, loc hd strngrs (assoc w/ carb?)pos Fe stn, NFSOC

910-30 SS, lt pnksh tn-clr, md-fn grn, md wl-sl rnd, unconsol qtz grns, frost, mnrcalc cmt, loc wht-gr hd calc/dolo cmt, pos Fe stn, NFSOC

930-50 SS aa, lt pnksh tn-clr, wht-md gr, md-fn grn, md wl-sl rnd, unconsol qtz grns, frost, loc hd calc/dolo cmt, loc mnrcalc cmt, pos Fe stn, NFSOC

950-70 SS aa, lt pnksh tn-clr, wht, md gr-blk, md-fn grn, md wl-sl rnd, unconsol qtz grns, frost, mnrcalc cmt, loc hd calc/dolo cmt (assoc w/ carb?), pos Fe stn, NFSOC

970-90 SS aa, lt pnksh tn-clr, wht-md gr, md-fn grn, md wl-sl rnd, unconsol qtz grns, frost, loc hd calc/dolo cmt, loc mnrcalc cmt, pos Fe stn, NFSOC

990-1010 SS aa, lt pnksh tn-clr, wht-md gr, md-fn grn, md wl-sl rnd, unconsol qtz grns, frost, mnrcalc cmt, loc hd calc/dolo cmt (assoc w/ carb?), pos Fe stn, NFSOC

1010-30 SS aa, lt pnksh tn-clr, wht-md gr, md-fn grn, md wl-sl rnd, unconsol qtz grns, frost, mnrcalc cmt, loc hd calc/dolo cmt, pos Fe stn, NFSOC

1030-50 SS aa, lt pnksh tn-clr, wht-md gr, md-fn grn, md wl-sl rnd, unconsol qtz grns, frost, loc hd calc/dolo cmt, loc mnrcalc cmt, pos Fe stn, NFSOC

1050-70 SS, pinksh-rd, fn-md grn, rnd-sb rnd, md wl srt, unconsol qtz grns, sl calc cem, com Fe stn, poss Fe cem, NFSOC

1070-90 SS aa, pinksh-rd, fn-md grn, rnd-sb rnd, md wl srt, pred unconsol frosted qtz grns, sl calc cem, com Fe stn, poss Fe cem, NFSOC

1090-1110 SS, pinksh-rd, fn-md grn, rnd-sb rnd, frost, md wl srt, unconsol qtz grns, sl calc cem, com Fe stn, poss Fe cem, NFSOC

1110-30 SS, pnksh rd, fn-md-occ crs grn, wl rnd-sb rnd ip, md wl srt, frost, pred lse qtz grns, prob calc cem, poss Fe cem, Fe stn, NFSOC

1130-50 SS aa, pinksh-rd, fn-md grn, rnd-sb rnd, md wl srt, pred unconsol frosted qtz grns, sl calc cem, com Fe stn, poss Fe cem, NFSOC

1150-70 SS, pinksh-rd, fn-md grn, rnd-sb rnd, frost, md wl srt, unconsol qtz grns, sl calc cem, com Fe stn, poss Fe cem, NFSOC

1170-90 SS aa, pinksh-rd, fn-md grn, rnd-sb rnd, md wl srt, pred unconsol frosted qtz grns, sl calc cem, com Fe stn, poss Fe cem, NFSOC

1190-1210 SS, pinksh-rd, fn-md grn, rnd-sb rnd, frost, md wl srt, unconsol qtz grns, sl calc cem, com Fe stn, poss Fe cem, NFSOC

1210-30 SS aa, pinksh-rd, fn-md grn, rnd-sb rnd, md wl srt, pred unconsol frosted qtz grns, sl calc cem, com Fe stn, poss Fe cem, NFSOC

1230-50 SS aa, pred pnksh rd lse qtz grns, + scat cuttngs SS, rd-orng, sl mott dk gr, vfn-fn grn, sub rnd, md srt, argil, qtz & scat dk gr lithic grns, Fe cem, rd cly fill por, non calc, NFSOC

1250-70 SS, orng-lt rd, fn-md grn, sb rnd- bcm sb ang, less frost, md wl srt, pred unconsol qtz grns, com Fe stn, poss Fe cem, NFSOC

SUPAI GROUP – WESCOGOME FORMATION 1263' (3818)

1270-90 SS, orng-lt rd, fn-occ md grn, occ vfn grn, sub ang-sb rnd, md wl srt, pred lse qtz grns, Fe stn, NFSOC
1290-1310 SS aa, ornglt rd, fn-occ md grn, occ vfn grn, sub ang-sb rnd, md wl srt, pred lse qtz grns, Fe stn, NFSOC
1310-30 SS, orng, bcm vfn grn to fn grn ip, poss grd to SLTSTN ip, sb ang-sb rnd, wl srt, pred lse grns, Fe stn, poss slt washing out of smps, NFSOC
1330-50 SS, orng-lt rd, fn-vgn grn, sb ang-sb rnd, wl srt, pred lse grns, Fe stn, poss slt washing out of smps, (poss grd to SLTSTN ip), NFSOC
1350-70 SS, orng-lt rd, vfn grn to fn grn, poss grd to SLTSTN ip, sb ang-sb rnd, wl srt, pred lse grns, Fe stn, poss slt in smps, NFSOC
1370-90 SS grd to SLTSTN, rd-orng, fn-vfn grn, spec dk gr, v argil, rd cly fill, qtz & lithic frags, sl calc, NFSOC
1390-1410 SS grd to SLTSTN aa, rd-orng, fn-vfn grn, spec dk gr, v argil, rd cly fill, qtz & lithic frags, sl calc, NFSOC
1410-30 SS grd to SLTSTN, rd-orng, fn-vfn grn, spec dk gr w lithic frags, v argil, rd cly fill, qtz & poss feld? frags, poss sl mic, sl calc, NFSOC
1430-50 SS grd to SLTSTN, rd-orng, spec dk gr, fn-vfn grn, v argil, rd cly fill, qtz-lithic & poss feld? frags, poss sl mic, sl calc, NFSOC
1450-70 SS grd to SLTSTN aa, rd-orng, fn-vfn grn, spec dk gr w lithic frags, v argil, rd cly fill, qtz & poss feld? frags, poss sl mic, sl calc, NFSOC
1470-90 SS grd to SLTSTN, rd-orng, spec dk gr, fn-vfn grn, v argil, rd cly fill, qtz-lithic & poss feld? frags, poss sl mic, sl calc, NFSOC
1490-1510 SS grd to SLTSTN, rd-orng, fn-vfn grn, spec dk gr w lithic frags, v argil, rd cly fill, qtz & poss feld? frags, poss sl mic, sl calc, NFSOC
1510-20 SS, lt orng-orng, fn-md grn, sb rnd-sb ang, md wl srt, cly fill, sl calc cem, NFSOC
1520-40 SS grd to SLTSTN, rd-orng, vfn-fn grn, sb ang, wd wl srt, abund rd cly grd to SHL? ip, sl calc, NFSOC
1540-60 SLTSTN grd to SHL, rd-rd orng, vfn grn qtz grns, abund rd cly washes from samps, sl calc, NFSOC
1560-80 SHL grd to SLTSTN, rd-orng rd, abund rd cly/shl washes from samples, sl calc, com vrn grn qtz grns, NFSOC
1580-1600 SS, yel-tn-lt orng, vfn-fn-occ md grn, sb rnd, md wl srt, unconsol qtz grns, calc cem, poss qtz ovrgrth cem, NFSOC
1600-20 SS grd to SLTSTN, orng-rd, vfn-occ fn grn, sb rnd, md srt, abund calc rd cly mtrix-grd to SHL? ip, NFSOC
1620-40 SS, lt orng tn-wht, md-fn grn, sb rnd-sb ang, md srt, rr dk gr lithc grns, sl frm-sl fri ip, md cem ip w qtz ovrgrth & minor calc cem, NFSOC

SUPAI GROUP – MANACACHA FORMATION 1646' (3436)

1640-60 SS, yel-tn-clr, fn-vfn grn, sb rnd, md wl srt, scat Fe stn btwn grns, pred unconsol grns, calc cem, NFSOC
1660-80 SS, tn-wht-lt orng ip, fn-md-occ crs grn, sb rng-sb ang, md srt, sl fri ip, qtz ovrgrth & min calc cem, sl Fe stn btwn grns, NFSOC

SUPAI GROUP -- WATAHOMIGI FORMATION 1678' (3404)

1680-1700 SS grd to SLTSTN, lt gr, vfn grn, sb ang-sb rnd, wl srt, abund lt gr cly fill, sl calc, NFSOC
1700-20 SS grd to SLTSTN aa, lt gr, vfn grn, sb ang-sb rnd, wl srt, abund lt gr cly fill, sl calc, NFSOC
1720-40 SLTSTN grd to vfn grn SS, lt gr, vfn grn, sb ang-sb rnd, wl srt, abund lt gr cly fill, sl calc, NFSOC
1740-60 SLTSTN grd to vfn grn SS aa, lt gr-bcm sl lt orng ip, vfn-fn grn, sb ang-sb rnd, wl srt, abund lt gr cly fill, sl calc, NFSOC
1760-80 SLTSTN grd to vfn grn SS aa, lt gr-bcm sl lt orng ip, vfn-fn grn, sb ang-sb rnd, wl srt, abund lt gr cly fill, sl calc, NFSOC
1780-1800 SLTSTN grd to vfn grn SS aa, lt gr-bcm sl lt orng ip, vfn-fn grn, sb ang-sb rnd, wl srt, abund lt gr cly fill, sl calc, NFSOC

1800-20 SLTSTN, rd-orng brn-occ wht, vfn grn, blkly, md hd, dolo cem grd to v argil DOLO ip, orng, dens, hd, sndy, pos scat vug POR, NFSOC

1820-40 SLTSTN, rd-orng brn-occ wht, vfn grn, blkly, md hd, dolo cem grd to DOLO, wht-orng, dens, hd, sndy, pos scat vug POR, SS strgrs, mnr fn grn, dol-calc mtrx, NFSOC

1840-60 SLTSTN, rd-orng brn, vfn grn, blkly, md hd, sndy, dolo cem grd to argil DOLO, wht-orng, dens, loc hd, sndy, SS strgrs, mnr fn grn, dol/calc mtrx, NFSOC

1860-80 SS, lt org-wht, fn-vfn grn, sb ang-sb rnd, wl srt, com lt gr cly fill, wk-md calc/dol mtrx, NFSOC

1880-1900 SLTSTN, rd-orng brn, vfn grn, blkly, md hd, com sndy, dolo cem, grd to SS strgrs, lt org-wht, v fn grn, calc/dolo cmt, NFSOC

1900-20 SLTSTN, rd-orng brn, vfn grn, plty-blky, md hd, md sndy, str calc cmt assoc w/ plty txt, com dolo cem, grd to mnr SS strgrs, v fn grn, calc/dolo cmt, wk cly, NFSOC

1920-40 SLTSTN, rd-orng brn, vfn grn, blkly, md hd, com sndy, dolo cem, grd to SS strgrs, lt org-wht, v fn grn, sb plty, calc/dolo cmt, mnr DOLO, NFSOC

1940-60 SLTSTN, rd-orng brn, vfn grn, plty-loc blkly, md hd, comm sndy, abund str calc cmt assoc w/ plty txt, poss dolo cem, grd to loc mnr SS, NFSOC

1960-80 SLTSTN, rd-orng brn, vfn grn, sb plty-plty, md hd, loc md sndy, str calc cmt, grd to SS, wht-lt gr-lt org, v fn grn, calc cmt, lith frags, NFSOC

1980-2000 SLTSTN, rd-orng brn, vfn grn, blkly, md hd, loc-com sndy, str calc cem, grd to SS strgrs, wht-lt org-lt gr, v fn grn, sb plty, str calc cmt, mnr DOLO, NFSOC

2000-20 SS, wht-v lt org, vfn grn, sb rnd-sb ang, pred wl srt, mnr fn-md gr, loc wht cly fill, str calc cmt, NFSOC

2020-40 SS, wht-lt org, vfn grn, sb rnd-sb ang, wl srt, com wht cly fill, str calc cmt, NFSOC

2040-60 SLTSTN, rd-orng brn, vfn grn, blkly-sb plty, md hd, loc sndy, str calc cem, grd to SS, wht-lt org-lt gr, v fn grn, sb plty, str calc cmt, mnr calc vng, NFSOC

2060-80 SS, wht-lt org, vfn grn, sb rnd-sb ang, wl srt, com wht cly fill, str calc cmt, com SLTST rd brn, str calc cmt, NFSOC

2080-2100 SLTSTN, rd-org brn, vfn grn, plty-sb plty, md hd, loc sndy, str calc cem, grd to SS, wht-lt org-lt gr, v fn grn, plty, str calc cmt, mnr DOL, NFSOC

2100-20 SS, org-loc wht, vfn grn, sb rnd-sb ang, wl srt, md hd-brit, mnr wht cly fill, md-str calc cmt, mnr SLTST rd brn, str calc cmt, NFSOC

2120-40 SLTSTN, rd-org brn, vfn grn, plty-sb plty, md hd, loc sndy, str calc cem, grd to SS, wht-lt org-lt gr, v fn grn, plty, str calc cmt, mnr DOL, NFSOC

2140-60 SLTSTN, rd-org brn, sb plty, md hd, loc sndy, md calc cem, loc SS, wht-lt org, v fn grn, plty, md calc cmt, mnr calc vng, NFSOC

2160-80 SLTSTN, rd-org brn, blkly-sb plty, md hd, md-str calc cem, loc SS strgrs, lt org-wht, v fn grn, plty, str calc cmt, NFSOC

2180-2200 SLTSTN, rd-org brn, vfn grn, plty-sb plty, md hd, loc sndy, str calc cem, grd to loc LS, lt gr-lt brn, plty, mnr sndy, loc cly, NFSOC

2200-20 SLTSTN, rd-org brn, vfn grn, blkly, md hd, md sndy, str calc cem, grd to loc LS, lt gr-lt brn, plty, sndy, loc wk cly, NFSOC

2220-40 SLTSTN, rd-org brn, vfn grn, blkly, md hd, md sndy, str calc cem, mnr LS, lt gr-lt brn, plty, sndy, NFSOC

2240-60 SLTSTN, rd-org brn, vfn grn, blkly, md hd, md sndy, str calc cem, grd to mnr SS, lt gr-lt brn, plty, & sndy LS, NFSOC

2260-80 SLTSTN, rd-org brn, vfn grn, blkly, md hd, md sndy, str calc cem, grd to mnr sndy LS, wht-lt gr, plty, sndy, NFSOC

2280-2300 SLTSTN, orng-rd-rd brn- wht ip, vfn grn, blkly, sndy, calc grd to argil LS, lt orng-occ wht, mic xln, dens, aphin, lt orng, argil, NFSOC

2300-20 SLTSTN, rd to argil LS aa, orng-rd brn-occ wht, vfn grn, blkly, sndy, calc, LS lt orng-occ wht, dens, md frm, aphin, argil, NFSOC

2320-40 SLTSTN, rd-org brn, vfn grn, blkly, md hd, md sndy, str calc cem, grd to argil LS, wht-lt gr-orng, plty, sndy, md frm, NFSOC

2340-60 SLTSTN, orng-rd-rd brn- wht ip, vfn grn, abund lse snd grns, calc grd to argil LS, lt orng-occ wht, mic xln, dens, aphin, lt orng, argil, NFSOC

2360-80 SLTSTN & argil LS aa, orng-rd brn-lt gr-wht ip + SS, lt orng-fn-md grn, sb ang-ab rnd, calc cem, NFSOC

2380-2400 SLTSTN, orng-rd-occ wht ip, vfn grn, blk, md-sl frm, calc, LS stringers, orng-lt orng, mic xln, dens, aphn, argil, sndy ip, NFSOC

2400-20 SLTSTN, orng-rd-rd brn- wht ip, vfn grn, abund lse snd grns, calc grd to argil LS, lt orng-occ wht, mic xln, dens, aphn, lt orng, argil, NFSOC

2420-40 SLTSTN & argil LS aa, orng-rd brn-lt gr-wht ip + SS, wht, fn-vfn grn, sb rnd, md wl srt, sl fri, abund calc cem, NFSOC

2440-60 SS, lt salm-wht-clr, fn-vfn grn, sb ang-sb rnd, md srt, abund calc cem grd to v sndy/argil LS ip, rr pcs wht CHT, NFSOC

2460-80 SS grd to SLTSTN, orng-rd brn, occ wht, vfn-occ fn grn, abund rd cly mtrx, calc, sl mic ip, com argil LS, lt rd-orng, micxln, dens, hd, poss rr wht CHT aa, NFSOC

2460-2500 SS grd to SLTSTN aa, orng-rd brn, occ wht, vfn-occ fn grn, abund rd cly mtrx, calc, sl mic ip, com argil LS, lt rd-orng, micxln, dens, hd, poss rr wht CHT aa, NFSOC

2500-20 SS grd to SLTSTN aa, orng-rd brn, occ wht, vfn-occ fn grn, abund rd cly mtrx, calc, sl mic ip + DOLO, crm-lt tn-pnk, dens, md hd, argil, sndy NFSOC

2520-40 SLTSTN grd to MUDSTN, rd brn-orng-occ wht, sft-sl frm, grny/rthy tex, pos sl mic, sndy ip, v calc, NFSOC

2540-60 SLTSTN grd to MUDSTN aa, rd brn-orng-occ wht, sft-sl frm, grny/rthy tex, pos sl mic, sndy ip, v calc, DOLO, crm-lt tn-pnk, dens, md hd, argil, sndy NFSOC

2560-80 SLTSTN grd to MUDSTN aa, rd brn-orng-occ wht, sft-sl frm, grny/rthy tex, pos sl mic, sndy ip, v calc grd to argil DOLO, crm-lt tn-pnk, dens, md hd, sndy NFSOC

2580-2600 SLTSTN grd to MUDSTN aa, rd brn-orng, sft-sl frm, grny/rthy tex, sndy ip, v calc, scat LS, lt gr, mic xln, dens, md frm, NFSOC

2600-20 SLTSTN grd to MUDSTN aa, abund brk rd cly washes from samps, calc, abund lse qtz grns, scat LS aa, lt gr, md hd, mic xln, dens, NFSOC

2620-40 50% LS, wht-lt gr-lt orng, crypto-mic xln, dens, md hd, argil ip, poss wht calc frac fill, abund rd cly washes from samples aa, scat dull yel min FLUOR, no shows

2640-60 SLTSTN grd to MUDSTN, brk rd-rd brn-orng, blk, grny, sndy w abund lse qtz grns, 40-50% LS, wht-orng, md hd, mic-crypt xln, dens, argil ip, sndy ip, NFSOC

2660-80 LS aa, wht-orng, md hd, mic-crypt xln, dens, argil ip, sndy ip & SLTSTN grd to MUDSTN aa, brk rd-rd brn-orng, blk, grny, sndy w abund lse qtz grns, NFSOC

2680-2700 LS, wht-pl orng, md hd, mic-crypt xln, dens, argil ip, sndy ip, rr orng CHT + SLTSTN grd to MUDSTN aa, brk rd-rd brn-orng, blk, grny, sndy, abund rd cly in smps, NFSOC

2700-20 LS, wht-pl orng-pl yel, md hd, mic-crypt xln, dens + abund SLTSTN aa, brk rd-rd brn, grny, v calc, NFSOC

2720-40 LS aa, wht-pl orng-pl yel, md hd, mic-crypt xln, dens, SLTSTN aa, brk rd-rd brn, grny, v calc, scat com lt gr CHT, NFSOC

2740-60 LS aa, wht-pl orng-pl yel, md hd, mic-crypt xln, dens, SLTSTN aa, brk rd-rd brn, grny, v calc, scat com lt gr CHT, NFSOC

2760-80 LS, wht-crm-vlt gr, mic-crypt xln, poss occ crs xln, dens, sl-md frm, poss crs xln calc, even pl yel-grn min FLUOR, no shows

REDWALL LIMESTONE 2756' (2326)

2780-2800 LS, wht-crm-vpl orn ip, mic-crypt xln, dens, sl-md hd, poss crs xln calc ip, pl yel-grn FLUOR aa, no show

2800-20 LS aa, wht-crm-vpl orn ip, mic-crypt xln, dens, sl-md hd, poss crs xln calc ip, pl yel-grn FLUOR aa, no show

2820-40 LS grd to DOLO LS ip, wht-tn-lt orng ip, mic-crypto xln, dens, md hd-hd ip, com wht CHT, com rd SLTSTN (cavings?), spotty dull yel FLUOR, no show

2840-60 LS, wht-crm- orn-trnsluc-clr, mic-crypt xln, mnr loc v fn grn, dens, md hd, com CHT wht-crm, blk, mnr SLTSTN, spty pl yel grn FLUOR, no cut

2860-80 LS, wht-crm-mnr orn, mic- crypt xln, mnr loc v fn grn, dens, md hd, loc CHT, wht-crm, blk-glassy, spty pl yel grn FLUOR, no cut

2880-2900 LS, wht-crm-mnr orn, mic- crypt xln, mnr loc v fn grn, dens, md hd, com CHT, wht- crm, blk-glassy, spty pl yel grn FLUOR, no cut

2900-20 DOLO LS grd to CALC DOLO, wht-lt tn, mic-crypt xln, dens, md hd-hd, mnrd SLTSTN, non calc, spotty dull yel FLUOR, no show
 2920-40 LS, wht-frm-mnr orn, mic- crypt xln, dens, md hd, mnrd loc DOLO, wht-frm, v fn grn-micrxln, wk-sptty pl yel grn FLUOR, no cut
 2940-60 LS, wht-frm-mnr orn, mic- crypt xln, mnrd loc v fn grn, dens, md hd, com DOLO, tan-wht- frm, sptty pl yel grn FLUOR, no cut

TEMPLE BUTTE FM. 2964' (2118)

2960-80 CALC DOLO grd to DOLO w/ comm LS, lt brn- pnk-lt purp, micr xln, com slty-sndy, plty- sb plty, md hd-frm, grd to SLTSTN, dolo-loc com str-md calc cmt, loc CHT, sptty yel min FLUOR assoc w/ DOLO, no cut
 2980-3000 DOLO, lt brn-tan-pnk, v fn-crypt xln, mssv, md hd, loc grd to LS, wht, trnslc-clr, comm yel min FLUOR assoc w/ DOLO, no cut
 3000-20 DOLO, lt brn-tan-pnk, mnrd wht, fn grn, mssv, md hd, loc SLTSTN loc grd to CLYST, rd brn-pnk, dolo cmt, plty-sb plty, comm yel min FLUOR, no cut
 3020-40 DOLO, lt brn-tan-pnk, mnrd wht, fn grn-micr xln, mssv, md hd, com SLTSTN, rd brn, dolo cmt, sb plty, comm yel min FLUOR, no cut
 3040-60 DOLO, lt brn-tan-pnk, wht-lt gr, org, fn grn-micr xln, mssv, md hd, loc sndy, com-mnr SLTSTN, rd brn, dolo cmt, sb plty, abund yel min FLUOR, no cut
 3060-80 DOLO, lt gr-wht-pnk, org, fn grn-micr xln, mssv, md hd, loc ARG DOLO, wht-rd brn-pnk, str cly, sb plty, loc SLTSTN strngr, abund yel min FLUOR, no cut
 3080-3100 DOLO, lt gr-rd brn-wht, fn grn-micr xln, mssv, md hd, loc SLTSTN strngr, rd brn, dol cmt, rr SS, abund yel min FLUOR, no cut
 3100-20 DOLO, lt gr-wht, fn grn-micr xln, mssv, md hd, mnrd SLTSTN grd to CLYSTN (cavings?), abund yel min FLUOR, no cut
 3120-40 DOLO, md-lt gr-wht, md brn-tan, pred fn grn, mssv, md hd, loc slty grd to mnrd SLSTN, mnrd yel min FLUOR, no cut

MUAV LIMESTONE 3126' (1956)

3140-60 DOLO, lt gr-rd brn-pnk, frm- wht, rr lt gn, micr xln-fn grn, mssv, md hd, mnrd yel min FLUOR, no cut
 3160-80 DOLO, lt gr-wht, rd brn-med brn-tan, rr lt-md gn, micr xln-fn grn, mssv, md hd, loc grd to ARG DOL, mnrd SLTSTN (caving?), mnrd yel min FLUOR, no cut
 3180-3200 ARG DOLO, wht, mnrd-tr rd brn- med brn-tan, micr xln-fn grn, mssv, md hd-frm, loc grd to DOL, md-lt gr, brn-tan, micr xln, str yel min FLUOR, no cut
 3200-20 calc DOLO, wht, lt org brn-pnk, rr lt grn, micr xln-fn grn, mssv, md hd-frm, loc grd to mnrd SLTSTN, rd brn, dolo cmt, loc sndy, str yel min FLUOR, no cut
 3220-40 ARG DOLO, wht, pnk-rd brn, org, rr lt grn, micr xln-fn grn, mssv, md hd-frm, loc grd to DOL, loc SLTSTN, rd brn, calc/ dol cmt, str yel min FLUOR, no cut
 3240-60 calc DOLO, pnk-md brn, frm- wht, lt-md grn, micr xln, mssv, md hd-frm, loc grd to DOL, loc SLTSTN, rd brn, calc/dol cmt, mnrd SH, grn, dolo cmt, str yel min FLUOR, no cut
 3260-80 calc DOLO grd to DOLO LS ip, off wht-frm, mic xln, dens, md hd, scat SHL, gr grn-grn, sb plty, sl wxy tex, evn yel gld FLUOR, no show
 3280-3300 calc DOLO grd to DOLO LS aa, off wht-frm, mic xln, dens, md hd, sl incr SHL, gr grn-grn-lt brn, sb plty, sl wxy tex, evn yel gld FLUOR, no show
 3300-20 DOLO, tn-lt brn, fn-mic xln, dens-sl suc tex ip, md frm, sl argil, scat lt brn-tn transi CHT, evn dul yel-gld FLUOR, no show
 3320-40 DOLO, tn-lt brn-brn, fn-mic xln, dens, md hd-hd, sl-md argil, com-abund lt brn-gr transi CHT, com dul yel-gld FLUOR aa, no show

Bright Angel Shale 3332' (1750)

3340-60 CALC DOLO, md brn-tn, wht- frm, fn-mic xln, dens-sl suc, md hd, tr argil, mnrd SLTSTN, dk-md gr, rb brn, dolo cmt, md hd, pl yel FLUOR, sptty slow strn cut, sl intrxln POR

3360-80 SLTSTN, lt-md gr, rd brn, calc/ dolo cmt, md hd, loc SS, DOLO, tn- brn-occ wht, fin-mic xln, dens, md hd-hd, com slt, mnr calc, pl yel FLUOR, spty slow strn cut, sl intrxn POR
 3380-3400 SLTSTN aa, lt-md gr-rd brn, plty-blky, v sl-non calc, sl-md frm, poss sl wxy tex grd to SHL ip, com SS, clr-mlky, md-crs grn, ang, lse qtz grns, spty FLUOR, no show

Tapeats Sandstone 3386' (1696)

3400-20 SS, clr-mnr mlky, crse grn, ang, loc SLTSTN, red brn-org, calc cmt, loc sndy, md hd-sft, grdg to CLYSTN, spty yel FLUOR, no cut
 3420-40 SS, clry, crs grn, ang, pr srt, lse qtz grns, loc SLTSTN, red brn-org, calc cmt, loc sndy, md hd-sft, spty yel FLUOR, no cut
 3440-60 SS, clr-mnr mlky, crse-md grn, ang, md-pr srt, pred lse qtz grns, loc SLTSTN, red brn-org, calc cmt, md hd-sft, spty yel FLUOR, no cut
 3460-80 SS, tn-clr-sl rd brn, fin-md grn, ang-sb ang, md srt, pred lse qtz grns, poss wht feld?, poss calc cem, scat-rr SLTSTN, rd brn, md sft, sl calc, spty-rr yel FLUOR, no show
 3480-3500 SS, clr-occ wht-lt yel, crs-md grn, ang, md srt, pred lse qtz grns, pos feld, scat brk rd SLTSTN aa, scat mod yel gld min FLUOR, no cut, no show
 3500-20 SS, clr-occ wht-lt yel, md-fin grn, ang, md wl srt, pred lse qtz grns, scat-rr brk rd SLTSTN aa, scat mod yel gld min FLUOR, no cut, no show
 3520-40 SS aa, clr-occ wht-lt yel, md-fin grn, ang, md wl srt, pred lse qtz grns, rr wht feld?, scat-rr brk rd SLTSTN aa, scat mod yel gld min FLUOR, no cut, no show
 3540-60 SS, clr-occ wht, md-occ crs grn, ang, md wl srt, pred lse qtz grns, poss rr feld grns, scat SLTSTN aa (cavings?), scat FLUOR aa, no shows
 3560-80 SS, clr-occ wht-md gr, fin-md- occ crs grn, md wl srt, pred lse ang qtz grns, poss rr mlky- clr feld grns, scat SLTSTN (cavings?), scat FLUOR, no cut
 3580-3600 SS aa, clr-occ wht, lt yel-org, md-fin grn, ang, md wl srt, pred lse qtz grns, rr mlky feld?, scat-rr SLTSTN, brn rd, sft, calc cmt, scat yel min FLUOR, no cut
 3600-20 SS, clr-occ wht-md gr, fin-md grn, md wl srt, pred lse ang qtz grns, rr mlky feld grns?, scat SLTSTN, rd brn-dk gr, calc cmt, (cavings?), scat FLUOR, no cut

Sixtymile Formation 3622' (1460)

3620-40 SLTSTN, rd brn, non calc (sil?) cmt, sft, grdg to SH dk brn, sft, non calc cmt, com rd brn mud, SS, clr-org, fin- md-occ crs grn, md wl srt, lse ang frags, rr-mnr mlky felds (?) grns, spty min FLUOR, ext wk cut
 3640-60 SS, org-clr, v fin-occ crs grn, poor srt, pred lse ang qtz grns, mnr mica, com rd slt/cly, SLTSTN grdg to SH rd brn-dk gr, loc calc/dolo cmt, mnr calc strngr, scat FLUOR, ext wk cut

CHUAR GROUP-Walcott Member of Kwagunt Formation 3662' (1420)

3660-80 SHL, dk-lt gr, rd brn, purp, comsly, frm-sft, mnr pyr (esp assoc w/ carb), non-sil? cmt, com arg, lt grn-wht, spty yel min FLUOR, no cut
 3680-3700 SH, dk-lt gr, rd brn, com slty, frm-sft, mnr pyr assoc w/ carb, non-sil? cmt, mnr-loc comm lt grn-wht arg, loc SS strgr, spty yel min FLUOR, no cut
 3700-20 SHL, lt-dk gr, rd brn, com slty-loc sndy, frm-sft, mnr-rr pyr com assoc w/ carb, pr cmt, comm lt grn-wht arg, mnr SS strgr, spty yel min FLUOR, no cut
 3720-40 SHL, lt-dk gr, loc com ox to rd brn, com slty, frm-sft, mnr-rr pyr, pr cmt, comm arg lt grn-wht, mnr SS strgr, spty yel min FLUOR, no cut
 3740-60 SHL, lt-dk gr, rd brn, com slty, frm-sft, mnr-rr pyr assoc w/ carb, non-sil? cmt, mnr lt grn-wht arg, mnr SS, spty yel min FLUOR, no cut
 3760-80 SHL grd to SLTSTN, gr-gr brn, striat ip, blky, sl frm, sl pyr, sl mic, non calc, NFSOC
 3780-3800 SHL grd to SLTSTN aa, gr-brk rd, striat ip aa, blky, sl frm, sly pry, non clac
 3800-20 SLTSTN grd to SHL, brk rd-lt gr ip, sft, non calc, abund rd cly washes from smps, NFSOC
 3820-40 SHL grd to SLTSTN ip?, lt-dk gr strkd-rd brn, sl frm-md sft, blky ip, rthy tex ip, sl mic pyr ip, non calc, NFSOC
 3840-60 SHL grd to SLTSTN aa, lt-dk gr strkd-rd brn, sl frm-md sft, blky, rthy tex, sl mic pyr ip, non calc, NFSOC

3860-80 SLTY SHL, rd brn-gr ip, blk, sl frm-md sft, gmy/rthy tex ip, poss sl mic, non calc, NFSOC
 3880-3900 SHL, lt-md dk gr, striat ip, blk, sl frm-md sft, poss sl mic, sl carb, non calc, NFSOC
 3900-20 SLTSTN-slt SH, rd brn, blk, frm- sft, mntr snd, v wk-non calc, SHL, lt-md dk gr, blk, sl frm-md sft, loc arg, poss mntr mic, dolo cmt, loc DOLO xtls, NFSOC
 3920-40 SHL, lt gr-gr grn-loc blk, md-lt gr, sub lam, md frm, sl mic, loc mntr pyr assoc w/ carb, com arg + DOLO, rd brn-pnk-wht, md-crs xln, dens, rubbly, assoc w/ wk spty min FLUOR, no cut
 3940-60 SS, clr-salm-crm, fn grn, sb ang-sb rnd, wl srt, pred lse qtz grns + scat intrbd SHL, pl grn-md gr, strk dk gr ip, blk-sb plty, sl-md frm, pyr ip, sl sndy ip, non calc, NFSOC
 3960-80 SHL, grn-lt-md gr, strkd dk gr ip, blk-sb plty, md frm, poss sl bent, carb ip, pyr ip, non calc + SS aa, wht-clr, fn grn, sb ang-sb rnd, wl srt, md frm, qtz? cem, NFSOC
 3980-4000 SS, v lt org brn-org brn, clr, rnd-sb ang, com lse md-crs grn, md srt, mntr mlky felds? + loc v fn grn, wl srt, dolo-qtz? cmt, md hd-brit, loc SH, NFSOC
 4000-20 SHL grd tp SLTSTN, rd brn-org brn-brn, lt-md grn, sb blk-plty, md hd-frm, mic ip, non calc, scat SS, rd brn-brn, wht-clr, pred fn grn-loc md- crs, rnd-sb rnd, pred wl srt, md hd, qtz cmt?, NFSOC
 4020-40 SS, orng, fn-occ md grn, sb rnd, md wl srt, sl fri ip to wl cem w qtz & FeO₂, SLTSTN grd to SHL, rd brn-gr-grn, blk-sb plty, md frm, gmy to sl wxy tex, non calc, NFSOC
 4040-60 SS grd to SLTSTN, rd brn-org, fn-vfn grn, sb rnd, md srt, blk, argil, mic ip, non calc, loc lse pred fn-md gr-mntr crs, mntr SHL, gr-gr grn, rd brn, plty, sl-fin frm, sl wxy tex, non calc, NFSOC
 4060-80 SS, orng, clr- rr wht, pred fn- md-occ crs grn, sb rnd-sb ang, md wl srt, loc mntr qtz & FeO₂ cem , loc SH, md-lt gr-gr, brn, wht, plty, fn-md hd, non calc, NFSOC
 4080-4100 SS, orng, clr, v fn-fin-occ md grn, sb rnd, md wl srt, md hd-brit grd to QTZITE ip, qtz & FeO₂ cmt, FeO₂ stn, com SHL, rd brn-gr-grn, sb plty-blky, md frm, non calc, NFSOC
 4100-20 SHL, brn-rd brn-gr-gr ip, strk dk gr ip, blk-sb plty, sl frm, rthy tex ip to sl wy tex ip, non calc + intrbd SS, rd orng-lt orng, fn grn, sb rnd, md wl srt, sl fri ip to wl cem w sil & iron cem, NFSOC
 4120-40 SHL grd to SLTSTN ip, brn-rd brn-gr-gr ip, strk dk gr ip, blk-sb plty, sl frm, rthy tex ip to sl wy tex ip, poss sl carb, sl mic pyr ip, non calc + SS aa, fn grn, sb rnd, wl srt, NFSOC
 4140-60 SS, orng-occ wht-clr, fn-occ md grn, sb rnd, md wl srt, rd stn btwn grns, sl fri ip, sil cem + varicol SHL aa, grn-rd-gr-brn, blk, sl pyr ip, non calc, NFSOC
 4160-80 SLTSTN grd to SHL, rd brn, blk, md frm, mic ip, non calc, sndy ip grd to SLTY SS ip, rd brn, fn grn, cly filled, non calc, NFSOC
 4180-4200 SS, rd brn-org-clr ip, fn-occ vcrs grn, congl ip, sb rnd, pr srt, v argil grd to SLTSTN ip, mic, cly fill por, scat SHL, rd-grn, blk, md frm, rthy-sl wxy tex, mic pyr ip, NFSOC
 4200-20 SLTSTN grd to SHL, rd brn-dk brn-pnk ip, lam, blk, md frm, sndy ip, mic ip, rthy, non calc, NFSOC, com-abund rd cly washes frm smps
 4220-40 SLTSTN grd to MDSTN, rd brn-mott dk gr ip, blk, md-sl frm, gmy/rthy tex, mic, sndy, poss CHT + intrbd SS, wht-clr, fn-md grn, sb ang-sb rnd, sl fri ip to hd-sil grd to QTZITE ip, NFSOC
 4240-60 SLTSTN loc grd to MDSTN, rd brn-md brn, blk, md hd-frm, sndy, intrbd SS, rd brn-wht-clr, fn-md grn, sb ang-sb rnd, md hd, sil cmt, NFSOC

Granite 4268' (814)

4260-80 GRAN, wht-org-blk-pnk, crs xtn, md weathd, pred qtz, felds com weath to cly w/ wk calc, biotite phenos loc alt to chlor, NFSOC
 4280-4300 GRAN, wht-clr-rd-blk, crs xtn, qtz-kspars bio pheno, felds loc weath to cly w/ wk calc, biotite phenos loc mntr alt to chlor, NFSOC
 4300-20 GRAN, orng-rd-clr-blk-wht, fn-crs xtn, qtz-kspars & bio pheno, fresh-ang, feld sl weath to cly ip, sl calc ip, NFSOC
 4320-40 GRAN, orng-rd-clr-blk-wht, fn-crs xtn, pred lse qtz & bio xtls, sl calc ip + SHL, gr grn-gr, sb plty, sl wxy tex, non calc-prob cvgs, NFSOC
 4340-50 GRAN aa, orng-rd-clr-blk, fn-crs xtn, pred lse qtz & bio xtls, min sl alt feld xtls, sl calc ip, NFSOC

CLAYTON WILLIAMS ENERGY, INC.

Babbitt Lease

Well No. 1

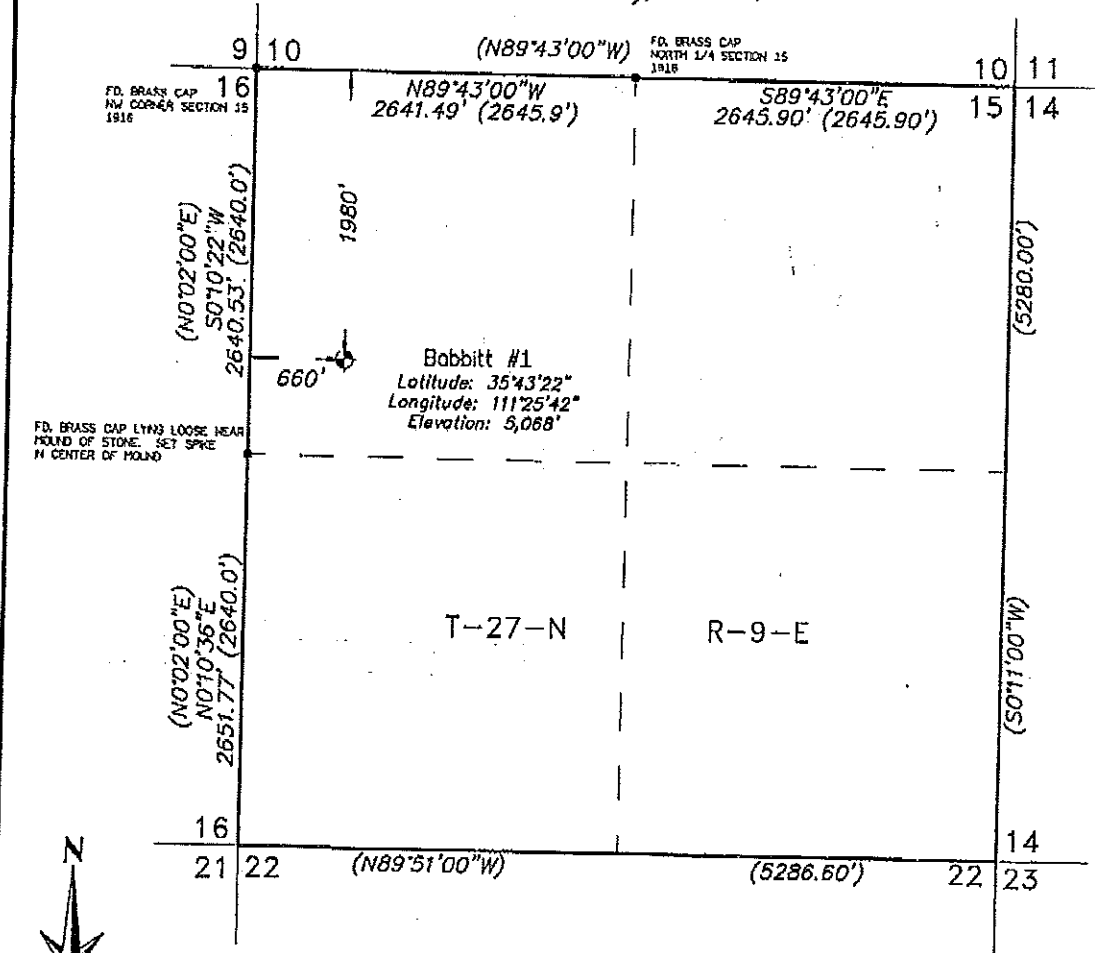
1980' From the North Line

660' From the West Line

Section 15, T-27-N, R-9-E,

G. & S.R. Meridian

Coconino County, Arizona

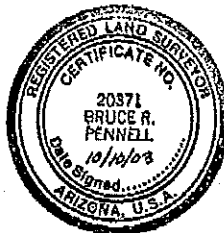


Bearings and Distances Shown
inside () indicate Record Information

1000 500 0 1000

SCALE: 1" = 1000'

I, Bruce R. Pennell hereby certify that this plat represents a true and correct survey made under my supervision on the ground October 6 & 7, 2003.



Bruce R. Pennell

Registered Professional Land Surveyor No. 20371
Date: 10/9/03

BRP ENTERPRISES, INC.

(BRUCE R. PENNELL)

P.O. BOX 51622, MIDLAND, TEXAS 79710

VOICE: (432) 570-6256

FAX: (432) 682-3262

MOBILE: (432) 528-1027

SURVEY CREW: Bruce Pennell - Main Land Survey

CAD FILE: ARIZONA\BABBITT-LOCATION PLAT

DRAWN BY: Marcus Hopkins

SUNBURST
CONSULTING
GEOLOGY SERVICE

Subject: Re: Babbitt #1 Coconino, County
From: Steve Rauzi <Steve.Rauzi@azgs.az.gov>
Date: Fri, 19 Dec 2003 14:33:19 -0700
To: Matt Swierc <mswierc@claytonwilliams.com>

Matt, Okay - that sounds good to me. Steve

Matt Swierc wrote:

Steve,

The base of fresh water appears to be around 2100'. We are waiting on composite logs from Schlumberger to send to you. They should be here soon. As I mentioned before, the Babbitts have a water well in the 1800' range in the area. They mentioned that this depth is where they would use this as a water well some time in the future. The 7" casing in this well is new. Unless you just want us to, there is no real need to set a plug higher. The cement retainer will not allow any flow up though it and it will have cement on top of it.

Thanks
Matt

-----Original Message-----

From: Steve Rauzi [mailto:steve.rauzi@azgs.az.gov]
Sent: Friday, December 19, 2003 2:21 PM
To: Matt Swierc
Subject: Re: Babbitt #1 Coconino, County

Matt,

Thanks for the update. I received the water analysis - definately not potable. Your plans to squeeze the perms sound good. I haven't seen the logs. What is the base of the fresh water based on the logs? It would be prudent to also set a cement plug from 1568-1468 as proposed in your approved application to p&a or possibly around 1800, which is the depth of the other Babbitt water well you mentioned in your email of Dec 18.

Steve Rauzi
Oil & Gas Administrator

Matt Swierc wrote:

Steve,

We had a water analysis done and the water has chlorides of 21,000 PPM. We have swabbed about 450 bbls of water and are convinced the water is coming from the formation. The water analysis is being faxed as I write this email.

I talked to Babbitt Ranches today and they want the well bore but not the zone we are in. Mr. Bill Cordasco said he is sending the letter for them to accept responsibility and take the well bore.

Our intention is to set a cement retainer within 100' of the top perforations and pump 50 sacks of cement below the retainer and leave 2 sacks on top. 50 sacks is enough cement to fill 267' of the 7" casing.

Thanks for all your help. Let me know if there is anything else you should need.

Matt Swierc
Clayton Williams Energy, Inc.

914

Re: Babbitt #1 Coconino, County

Subject: Re: Babbitt #1 Coconino, County
From: Steve Rauzi <Steve.Rauzi@azgs.az.gov>
Date: Fri, 19 Dec 2003 13:20:37 -0700
To: Matt Swierc <mswierc@claytonwilliams.com>

914

Matt,

Thanks for the update. I received the water analysis - definately not potable. Your plans to squeeze the perms sound good. I haven't seen the logs. What is the base of the fresh water based on the logs? It would be prudent to also set a cement plug from 1568-1468 as proposed in your approved application to p&a or possibly around 1800, which is the depth of the other Babbitt water well you mentioned in your email of Dec 18.

Steve Rauzi
Oil & Gas Administrator

Matt Swierc wrote:

Steve,

We had a water analysis done and the water has chlorides of 21,000 PPM. We have swabbed about 450 bbls of water and are convinced the water is coming from the formation. The water analysis is being faxed as I write this email.

I talked to Babbitt Ranches today and they want the well bore but not the zone we are in. Mr. Bill Cordasco said he is sending the letter for them to accept responsibility and take the well bore.

Our intention is to set a cement retainer within 100' of the top perforations and pump 50 sacks of cement below the retainer and leave 2 sacks on top. 50 sacks is enough cement to fill 267' of the 7" casing.

Thanks for all your help. Let me know if there is anything else you should need.

Matt Swierc
Clayton Williams Energy, Inc.

HALLIBURTON**Water Analysis Report**

FAX TO: 432-688-3225

To: Clayton Williams
 Submitted by: Halliburton Energy Services
 Attention: Matt Swiers
 Well Name: Babbitt #1

Date: 12/19/2003
 Date Rec: 12/19/2003
 Report #: FLM/A3803
 Formation: Produced water

914

Water is what one would expect from Spent Acid

Specific Gravity	1.010	
pH	0.95	
Resistivity	0.38	@ 70° F
Iron (Fe)	400	Mg / L
Potassium (K)	0	Mg / L
Sodium (Na)	10587	Mg / L
Calcium (Ca)	2008	Mg / L
Magnesium (Mg)	195	Mg / L
Chlorides (Cl)	21000	Mg / L
Sulfates (SO ₄)	300	Mg / L
Carbonates (CO ₃)	0.0	Mg / L
Bicarbonates (HCO ₃)	0	Mg / L
Total Dissolved Solids	34490	Mg / L

John Callins, Mgr ADEQ Wtr Qual 602-771-4651
 EPA recommended threshold limits for 2nd
 inorganic contaminants (1st aesthetic-taste & appear)

pH 6.5-8.5 mg/L	Sodium ~ 300 mg/L	
Iron 0.3 mg/L	Chlorides ≤ 4 mg/L	ton
Magnesium 0.5 mg/L		
Sulfates 250 mg/L		
Zinc 5 mg/L		
TDS ≤ 500 mg/L	≤ 2500 mg/L	

SUNDRY NOTICES AND REPORTS ON WELLS

1. Name of Operator CLAYTON WILLIAMS ENERGY, INC.

2. OILWELL ☒ GAS WELL ☐ OTHER ☐ (Specify) _____

3. Well Name BABBITT #1

Location 1980' FNL & 660' FWL

Sec. 15 Twp. 27N Rge. 9E County COCONINO, Arizona

4. Federal, State, or Indian Lease Number, or lessor's name if fee lease BABBITT

5. Field or Pool Name WILDCAT

6. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data.

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	DIRECTIONAL DRILL <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	PERFORATE CASING <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>
(OTHER) _____	(OTHER) _____

SUBSEQUENT REPORT OF:

WATER SHUT-OFF <input type="checkbox"/>	WEEKLY PROGRESS <input checked="" type="checkbox"/>
FRACTURE TREATMENT <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
SHOOTING OR ACIDIZING <input type="checkbox"/>	ALTER CASING <input type="checkbox"/>
(OTHER) _____	ABANDONMENT <input checked="" type="checkbox"/>

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log, Form 4)

1. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.

12/20/03 SITP 0#; swab & recover 150 BW, no gas; RD swab; RIH w/7" cement retainer & attempt to set @ 3405', would not set; push to 3596'; POOH & SDFN

12/21/03 RIH w/Baker cement retainer @ set @ 3402'; load csg. & test to 500#, ok; RU American Energy & pump 50 sx. cmt., 10-1/2 bbl. slurry; squeeze off w/6.5 bbls. thru retainer; final sqz. pressure 3000#; sting out & dump 120' on top of retainer; POOH LD tbg.; ND BOP; remove Larkin head; weld plate w/2" valve; load out tbg.; RDMO; FINAL REPORT; well P&A

8. I hereby certify that the foregoing is true and correct.

Signed Betsy Luna
BETSY LUNA
(432) 682-6324

Title ENGINEERING TECH. Date 01-08-2004

Permit No. 00914

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
Sundry Notice and Reports On Wells
Form No. 25 File One Copy

SUNDRY NOTICES AND REPORTS ON WELLS

1. Name of Operator CLAYTON WILLIAMS ENERGY, INC.

2. OIL WELL ☒ GAS WELL ☐ OTHER ☐ (Specify) _____

3. Well Name BABBITT #1

Location 1980' FNL & 660' FWL

Sec. 15 Twp. 27N Rge. 9E County COCONINO, Arizona

4. Federal, State, or Indian Lease Number, or lessor's name if fee lease BABBITT

5. Field or Pool Name WILDCAT

6. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data.

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF	<input type="checkbox"/>	PULL OR ALTER CASING	<input type="checkbox"/>
FRACTURE TREAT	<input type="checkbox"/>	DIRECTIONAL DRILL	<input type="checkbox"/>
SHOOT OR ACIDIZE	<input type="checkbox"/>	PERFORATE CASING	<input type="checkbox"/>
REPAIR WELL	<input type="checkbox"/>	CHANGE PLANS	<input type="checkbox"/>
(OTHER) _____			

SUBSEQUENT REPORT OF:

WATER SHUT-OFF	<input type="checkbox"/>	WEEKLY PROGRESS	<input checked="" type="checkbox"/>
FRACTURE TREATMENT	<input type="checkbox"/>	REPAIRING WELL	<input type="checkbox"/>
SHOOTING OR ACIDIZING	<input type="checkbox"/>	ALTER CASING	<input type="checkbox"/>
(OTHER) _____		ABANDONMENT	<input type="checkbox"/>

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log, Form 4)

1. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.

12/16/03 MIRU Completion Rig & related equipment

12/17/03 RIH w/model R packer & workstring to 3565', pickle tbgs.; spot 4 bbls. 10% NeFe across perms; pull pkr. to 3407' & rev. circ. 2 bbls.; set pkr., test csg.; broke down perms w/2.7BPM @ 1380#, estab. IR of 5.1 BPM @ 1400#; ISIP vacuum; acidize down tbgs. W/3000 gals. 10% NeFe & 120 ball sealers; ball action from 5.2 BPM @ 1100# to 0 BPM @ 4000#; comp. Ball out; ISIP 1500#; 5 min. vacuum; AIR 5.5 BPM @ 1200#; 103 bbls. TLTR; RD Halliburton; RU to swab; FL @ 1st run 1000'; made 10 runs; FL stable @ 1300'; rec'r 90 bbls.; SDFN

12/18/03 SI-14 hrs. 14 hrs., SITP 0#; made 33 swab runs; FL stable @ 1300'; no gas; rec'r 265 BW; SDFN

12/19/03 Swabbing well

8. I hereby certify that the foregoing is true and correct.

Signed

Betsy Luna
BETSY LUNA
(432) 682-6324

Title ENGINEERING TECH.

Date 12-19-03

Permit No. 00914

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION

Sundry Notice and Reports On Wells
File One Copy

Form No. 25

Re: Babbitt #1

Subject: Re: Babbitt #1

From: Steve Rauzi <Steve.Rauzi@azgs.az.gov>

Date: Thu, 18 Dec 2003 10:00:11 -0700

To: Matt Swierc <mswierc@claytonwilliams.com>

914

Matt,

Thank you for the email. I have not received anything from Mr. Cardasco or the Babbitt Ranches. I don't see any reason not to turn the well over as is IF your analysis verifies that the water is potable. I will need a copy of the water analysis and the water well acceptance form properly executed on behalf of the Babbitt Ranches.

Steve

Matt Swierc wrote:

Steve,

As you are aware we are perforated in the Tapeats. Tuesday we acidized the formation with 3000 gallons of 10% HCL. All went well with the job. We had 103 bbls of load and acid water to recover. As of this morning we have recovered 350 bbls of fluid and have no signs of gas or any other hydrocarbons. After being shut in overnight there was no pressure or gas at the surface. The fluid level in the well is stable at 1300'. The water we are recovering appears to be fresh. We are taking a sample to a lab in Flagstaff to be analyzed.

I have attempted to contact Mr. Bill Cardasco with the Babbitt ranches to see if he has sent in the form to the State for keeping the well bore for a water well. I have left messages and I am awaiting a return call. Would you know if Babbitt ranches has sent this form in???

If this water is potable can the landowner choose to take the well as is?? I was told that another well on the Babbitt ranch that we were getting water from for drilling was about 1800' deep.

Please let me know what you think.

Matt Swierc
Clayton Williams Energy, Inc.

12-3-03 Matt Swiere, CWE Dk Supt.

Set surf @ 1500' \pm Had wtr flows - none to surf.

Encountered wtr flow at 3776' = set & cut 7" to 3776' \pm

Getting more wtr & squeezed cut across shoe

Ran into granite @ 4350' = higher than expected.

Log hole & cut sws.

Squeeze hole below shoe of 7" csg. (\sim 450' of hole)

Etapeats sand \sim 200' thick, 14-15% ϕ

Released ris = Couldn't line up acid etc.

Plan to re-enter hole w/ workover rig within couple of weeks.

Move in & RU on Dec 15th & start Dec 16th

Thy & break down parts in Tapeats, test for gas.

Some slugs & gas effect in loss over Ea interval.

SUNDRY NOTICES AND REPORTS ON WELLS

1. Name of Operator Clayton Williams Energy, Inc.
2. OIL WELL ☒ GAS WELL ☐ OTHER ☐ (Specify) _____
3. Well Name Babbitt #1
- Location 1980' FWL & 660' FWL
- Sec. 15 Twp. 27N Rge. 9E County Coconino, Arizona
4. Federal, State, or Indian Lease Number, or lessor's name if fee lease Babbitt
5. Field or Pool Name Wildcat
6. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data.

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF ☐
 FRACTURE TREAT ☐
 SHOOT OR ACIDIZE ☐
 REPAIR WELL ☐

PULL OR ALTER CASING ☐
 DIRECTIONAL DRILL ☐
 PERFORATE CASING ☐
 CHANGE PLANS ☐

(OTHER) _____

SUBSEQUENT REPORT OF:

WATER SHUT-OFF ☐
 FRACTURE TREATMENT ☐
 SHOOTING OR ACIDIZING ☐

WEEKLY PROGRESS ☒
 REPAIRING WELL ☐
 ALTER CASING ☐
 ABANDONMENT ☐

(OTHER) _____

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log, Form 4)

1. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)
- 11/25/03 Log well, 1st - Density-Neutron-Resistivity, 2nd CM-ECS, 3rd FMI; cut sidewall cores 3782'-4315', 36 cores; PU CICR & TIH
- 11/26/03 TIH w/CICR; RU Halliburton to squeeze; set retainer @ 3673' & cmt. w/100 sx. Std. Neat cmt. + 2% CC, circ. out to pit; TOOH; RU & run bond log TOC @ 3350' w/good bond covering perf locations; perf 7" csg. 3470' - 3480' & 3524' - 3535', hole stayed full after perf; trying to get injection rate through perf w/hole full, no success; TIH w/bit, BS & DP; unload hole, try to establish inj. rate
- 11/27/03 Pump into perfs 1/4 bbl. every 30 min. 2000 psi max & bleed off to 0#; RU & LDDP; ND BOP & weld on cap & install 2" valve; clean pits; rig released @ 0600 hrs. 11/27/03

6. I hereby certify that the foregoing is true and correct.

Signed

Betsy Luna
 Betsy Luna
 432-682-6324

Title

Engineering Tech.

Date

12/01/03

Permit No. 00914

STATE OF ARIZONA
 OIL & GAS CONSERVATION COMMISSION
 Sundry Notice and Reports On Wells
 Form No. 25
 File One Copy

SUNDRY NOTICES AND REPORTS ON WELLS

1. Name of Operator Clayton Williams Energy, Inc.

2. OIL WELL ☒ GAS WELL ☐ OTHER ☐ (Specify) _____

3. Well Name Babbitt #1

Location 1980' FNL & 660' FWL

Sec. 15 Twp. 27N Rge. 9E County Cocconino, Arizona

4. Federal, State, or Indian Lease Number, or lessor's name if fee lease Babbitt

5. Field or Pool Name Wildcat

6. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF ☐
 FRACTURE TREAT ☐
 SHOOT OR ACIDIZE ☐
 REPAIR WELL ☐

PULL OR ALTER CASING ☐
 DIRECTIONAL DRILL ☐
 PERFORATE CASING ☐
 CHANGE PLANS ☐

(OTHER) _____

SUBSEQUENT REPORT OF:

WATER SHUT-OFF ☐
 FRACTURE TREATMENT ☐
 SHOOTING OR ACIDIZING ☐

WEEKLY PROGRESS ☒
 REPAIRING WELL ☐
 ALTER CASING ☐
 ABANDONMENT ☐

(OTHER) _____

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log, Form 4)

1. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.

- 11/18/03 PTD: 3932'; Drlg. CIRC & cmt. to 3784'; run leak off test, ok; drill cmt. to 3920'; dusted to 3929'; blow hole clean; TFNB; drill w/air to 3932' (wet); pump sweep to try to dry up hole; WO CIRC
- 11/19/03 MU CIRC & TIH to 3744'; set CIRC @ 3738', test same to 1000#; RU Halliburton & squeeze 7" csg. w/235 sx. neat cmt, circ. out cmt; TOOH w/setting tool; TIH w/6-1/8" bit, drill cmt. 3573'-3635'
- 11/20/03 Drill cmt. & CIRC to 3850'; RS; drill cmt. to 3932'; drill formation to 3943' & pump soap sweep; drill formation to 3964'
- 11/21/03 Drill & survey f/3964' to 4030'; survey @ 3733' 1.75°, @ 3764' 2.25°, @ 3795' 4.25°, @ 3857' 6.5°, @ 3971' 6.5°, @ 4023' 6.5°
- 11/22/03 Drill f/4030' - 4055'; CHC; TFNB; drill to 4110'
- 11/23/03 Drill & survey f/4110' - 4293'; CHC; TFNB; survey @ 4089' 6°, @ 4250' 5.5°
- 11/24/03 TIH; wash to bottom 4256' - 4393'; drill to 4350'; circ & pump sweep; ST; circ. & pump sweep for logs; RU Schlumberger & log well; survey @ 4350' 6°

8. I hereby certify that the foregoing is true and correct.

Signed

Betsy Luna
 Betsy Luna
 432-682-6324

Title

Engineering Tech. Date 11-25-03

Permit No. 00914

STATE OF ARIZONA
 OIL & GAS CONSERVATION COMMISSION

Sundry Notice and Reports On Wells
 File One Copy

Form No. 25

Mike Steward 11/12
Clayton Williams Energy Inc

Babbitt #1

00914

#3118

02-005-20034

Sect 15 T27N R9E Coconino Co

Setting 7" casing

0-3776' casing - encountered ~~fresh~~ ^{Fresh} water

Haliburton cement

flow above 3700'

will continue drilling

MP

SUNDRY NOTICES AND REPORTS ON WELLS

1. Name of Operator Clayton Williams Energy, Inc.

2. OIL WELL ☒ GAS WELL ☐ OTHER ☐ (Specify) _____

3. Well Name Babbitt #1

Location 1980' FNL & 660' FWL

Sec. 15 Twp. 27N Rge. 9E County Coconino, Arizona

4. Federal, State, or Indian Lease Number, or lessor's name if fee lease Babbitt

5. Field or Pool Name Wildcat

6. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF	<input type="checkbox"/>	PULL OR ALTER CASING	<input type="checkbox"/>
FRACTURE TREAT	<input type="checkbox"/>	DIRECTIONAL DRILL	<input type="checkbox"/>
SHOOT OR ACIDIZE	<input type="checkbox"/>	PERFORATE CASING	<input type="checkbox"/>
REPAIR WELL	<input type="checkbox"/>	CHANGE PLANS	<input type="checkbox"/>

(OTHER) _____

SUBSEQUENT REPORT OF:

WATER SHUT-OFF	<input type="checkbox"/>	WEEKLY PROGRESS	<input checked="" type="checkbox"/>
FRACTURE TREATMENT	<input type="checkbox"/>	REPAIRING WELL	<input type="checkbox"/>
SHOOTING OR ACIDIZING	<input type="checkbox"/>	ALTER CASING	<input type="checkbox"/>
		ABANDONMENT	<input type="checkbox"/>

(OTHER) _____

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log, Form 4)

1. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.

11/11/03 PTD: 3776'; Blow hole clean @ 3776'; ST; TIH washing to bottom @ 3776'; TOOH; RU loggers & run electric logs

11/12/03 Finish logging well; RD loggers; TIH w/bit, no problem on trip; blow hole clean; TOOH; WO 7" csg.

11/13/03 TIH; break circ. & wash to bottom (no fill) & circ; RU & begin running 7" 23# S-95 csg.

11/14/03 Finish running 7" csg, CSA 3776'; RU Halliburton & cmt. csg. w/50 sx. 50/50 Poz + 2% Gel + 2/10% CFR-3; c/o 7" csg. & NU BOP's; WOC & ran temp. svy., TOC @ 3250'-526' F/TD; test BOP; unload DP

11/15/03 Finish testing equipment; unload DP; PU BHA & TIH; wash to TOC @ 3725'; drlg. cmt., plug & FC; blow hole clean; TOOH

11/16/03 FOOH; RS; change out hammer; TIH; drill FC, 40' cmt. & shoe; drill f/3776'-3926' (dusting) hole then became wet; load hole w/FW; determine casing shoe broke down.

11/17/03 PU CICR & TIH; RU Halliburton & set CICR @ 3742'; squeeze csg. shoe w/204 sx. Cl. B neat + 2% CaCl2, circ. out cmt.; TOOH; RS; TIH w/bit; unload hole; drill cmt. 3680'-3742'; drlg. CICR @ 3742'

8. I hereby certify that the foregoing is true and correct.

Signed Betsy Luna
Betsy Luna
432-682-6324

Title Engineering Tech. Date 11-17-03

Permit No. 00914

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION

Sundry Notice and Reports On Wells
File One Copy

Form No. 25

SUNDRY NOTICES AND REPORTS ON WELLS

1. Name of Operator CLAYTON WILLIAMS ENERGY, INC.
 2. OIL WELL ☒ GAS WELL ☐ OTHER ☐ (Specify) _____
 3. Well Name BABBITT #1
 Location 1980' FNL & 660' FWL
 Sec. 15 Twp. 27N Rge. 9E County COCONINO, Arizona
 4. Federal, State, or Indian Lease Number, or lessor's name if fee lease BABBITT

5. Field or Pool Name WILDCAT

6. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data.

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF ☐ PULL OR ALTER CASING ☐
 FRACTURE TREAT ☐ DIRECTIONAL DRILL ☐
 SHOOT OR ACIDIZE ☐ PERFORATE CASING ☐
 REPAIR WELL ☐ CHANGE PLANS ☐
 (OTHER) _____

SUBSEQUENT REPORT OF:

WATER SHUT-OFF ☐ WEEKLY PROGRESS ☒
 FRACTURE TREATMENT ☐ REPAIRING WELL ☐
 SHOOTING OR ACIDIZING ☐ ALTER CASING ☐
 ABANDONMENT ☐
 (OTHER) _____

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log, Form 4)

1. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.

- 11/04/03 Finish RU air system; PU & TIH w/hammer bit; blow hole down & pump sweep; drill & survey f/548' - 1036'; POOH w/Totco tool; svy @ 622' 2-3/4°, @ 778' 2-1/4°, @ 999' 2°
- 11/05/03 TIH; drill & survey f/1036' - 1520'; blow hole clean; RU & run 8-5/8" 32# csg.; csg. set @ 1518'; cmt. csg. w/500 sx. Hal-lite + additives, tail w/360 sx. + additives, bump plug w/1500#, plug held, circ. 30 bbls. cmt. to surface; svy @ 1287 1-1/4°, @ 1504' 1°
- 11/06/03 WOC & run temp survey, TOC @ 250'; cmt. w/1" pipe f/250'-surface w/122 sx. Cl. "C" 2%; test BOP & related equipment; PU hammer bit & test; TIH
- 11/07/03 FIH; drill cmt., FC & shoe; RS; drill & svy. F/1520' - 2370'; svy @ 1807' 3/4°, @ 2247' 3/4°
- 11/08/03 Drill & survey f/2370' - 3300'; survey @ 2744' 1°
- 11/09/03 Drill f/3300' - 3342'; TFNB; RS; drill to 3494'; survey @ 3302' 1/2°
- 11/10/03 Blow hole clean; RS; trip for flt. sub; drill & survey f/3342' - 3776'; tight hole while attempting to make connection, work pipe free; survey @ 3454' 1°, @ 3705' 1/2°

8. I hereby certify that the foregoing is true and correct.

Signed Betsy Luna Title Engineering Tech. Date 11/10/03
 Betsy Luna
 (432) 682-6324

Permit No. 00914

STATE OF ARIZONA OIL & GAS CONSERVATION COMMISSION Sundry Notice and Reports On Wells Form No. 25 File One Copy
--

SUNDRY NOTICES AND REPORTS ON WELLS

1. Name of Operator CLAYTON WILLIAMS ENERGY, INC.

2. OIL WELL ☒ GAS WELL ☐ OTHER ☐ (Specify) _____

3. Well Name BABBIT #1

Location 1980' FNL & 660' FWL

Sec. 15 Twp. 27N Rge. 9 E County COCUINO , Arizona

4. Federal, State, or Indian Lease Number, or lessor's name if fee lease BABBIT

5. Field or Pool Name WILDCAT

6. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF ☐ PULL OR ALTER CASING ☐
 FRACTURE TREAT ☐ DIRECTIONAL DRILL ☐
 SHOOT OR ACIDIZE ☐ PERFORATE CASING ☐
 REPAIR WELL ☐ CHANGE PLANS ☐

(OTHER) _____

SUBSEQUENT REPORT OF:

WATER SHUT-OFF ☐ WEEKLY PROGRESS ☒
 FRACTURE TREATMENT ☐ REPAIRING WELL ☐
 SHOOTING OR ACIDIZING ☐ ALTER CASING ☐
 ABANDONMENT ☐

(OTHER) _____

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log, Form 4)

7. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

10/27/03 Finish location. Drill rat hole, mouse hole & set 14" cond pipe & anchors for rig

11/01/03 MI & RU Key Energy rig #54. Spud well @ 2330 hrs. 10/31/03. Drill to 90'.

11/02/03 Drill & survey f/90' - 548'

11/03/03 Mix LCM pill & pump same w/no returns. PO: Rigging up air system

8. I hereby certify that the foregoing is true and correct.

Signed

BETSY LUNA

(432) 682-6324

Title ENGINEERING TECH.Date 11/03/03Permit No. 00914

STATE OF ARIZONA
 OIL & GAS CONSERVATION COMMISSION
 Sundry Notice and Reports On Wells
 Form No. 25 File One Copy

5/98

- 10-29-03 Mike Stewart
Rigging up today + anticipate spud tomorrow
- 11-3-03 Spudded late Friday (10-31)
DHS @ 543'
- 11-4-03 Expect CSS point ~ midnight
- 11-5-03 Circulator 20 bbls cut - fell back to 250', will top off.



PERMIT TO DRILL

This constitutes the permission and authority from the

OIL AND GAS CONSERVATION COMMISSION,
STATE OF ARIZONA,

To: CLAYTON WILLIAMS ENERGY, INC.
(OPERATOR)

to drill a well to be known as

BABBITT #1
(WELL NAME)

located 1980' FNL & 660' FWL

Section 15 Township 27 N Range 9 E, COCONINO County, Arizona.

The 641.6 ACRES of said
Section, Township and Range is dedicated to this well.

Said well is to be drilled substantially as outlined in the attached Application and must be drilled
in full compliance with all applicable laws, statutes, rules and regulations of the State of Arizona.

Issued this 16 day of OCTOBER, 2003.

OIL AND GAS CONSERVATION COMMISSION

By Stam L. Ruzic
EXECUTIVE DIRECTOR
OIL & GAS ADMINISTRATOR

PERMIT 90814

RECEIPT NO. 3118

A.P.I. NO. 02-005-20034

State of Arizona
Oil & Gas Conservation Commission
Permit to Drill

FORM NO. 27

APPLICATION FOR PERMIT TO DRILL OR RE-ENTER

APPLICATION TO DRILL ☒

RE-ENTER OLD WELL ☐

NAME OF COMPANY OR OPERATOR

CLAYTON WILLIAMS ENERGY, INC.

Address Six Desta Drive, Ste. 3000

City Midland

State TX

Phone Number 432-

682-6324

Drilling Contractor

KEY ENERGY SERVICES, INC.

Address P O Box 900, Farmington, NM 87499

DESCRIPTION OF WELL AND LEASE

Federal, State or Indian Lease Number, or if fee lease, name of lessor

Babbitt

Well number

1

Elevation (ground)

5,068'

Nearest distance from proposed location to property or lease line:

660 feet

Distance from proposed location to nearest drilling, completed or applied-for well on the same lease:

N/A

feet

Number of acres in lease

641.6

Number of wells on lease, including this well, completed in or drilling to this reservoir:

1

If lease purchased with one or more wells drilled, from whom purchased:

Name

Address

Well location (give footage from section lines)

660' FWL & 1980' FNL

Section - township - range or block and survey

Sec. 15, T27N, R9E, G&S.R. Meridian

Dedication [A.A.C. R12-7-104(A)(3)]

641.6 acres

Field and reservoir (if wildcat, so state)

Wildcat

County

Coconino

Distance in miles and direction from nearest town or post office

±2.97 miles SE of Gray Mountain

Proposed depth:

7,000'

Rotary or cable tools

rotary

Approximate date work will start

November 3, 2003

Bond status performance bond attached

Organization Report

Filing Fee of \$25.00

Amount \$10,000

On file

Or attached

Attached

Remarks

API # 02-005-20034

CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the Production Superintendent of the

Clayton Williams Energy, Inc. (company), and that I am authorized by said company to make this report; and that this

report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

Mail completed form to:
Oil and Gas Program Administrator
Arizona Geological Survey
416 W. Congress, #100
Tucson, AZ 85701-1315

Signature Matt Swierc, Production Supt.

October 14, 2003

Date

Permit Number: 914

Approval Date: 10-16-03

Approved By: SL Rains

NOTICE: Before sending in this form be sure that you have given all information requested. Much unnecessary correspondence will thus be avoided.

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION

Application to Drill or Re-enter
File Two Copies

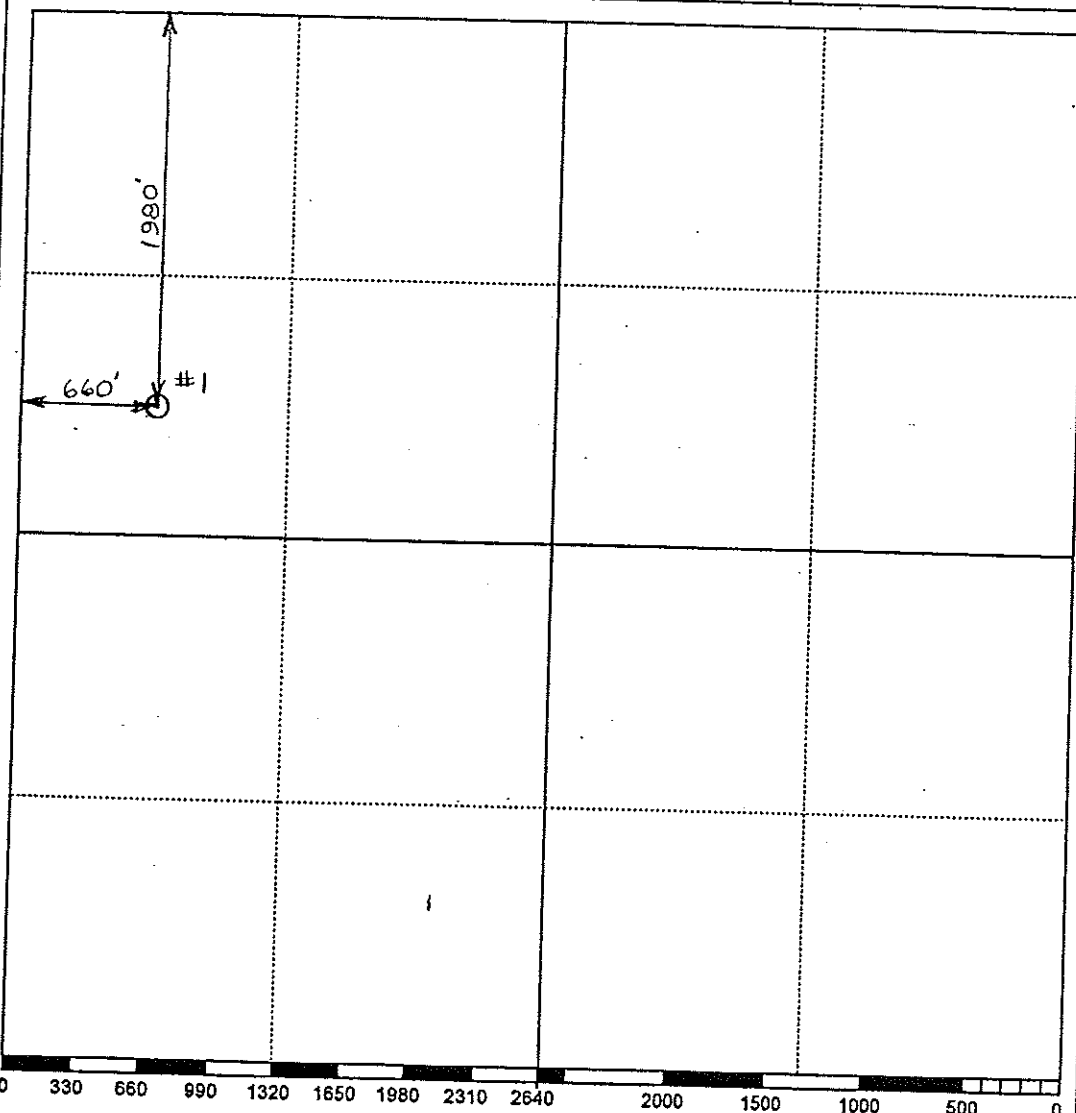
Form No. 3

(Complete Reverse Side)

5/96

- Operator shall outline on the plat the acreage dedicated to the well in compliance with A.A.C. R12-7-107.
- A registered surveyor shall show on the plat the location of the well and certify this information in the space provided.
- ALL DISTANCES SHOWN ON THE PLAT MUST BE FROM THE OUTER BOUNDARIES OF THE SECTION.
- Is the operator the only owner in the dedicated acreage outlined on the plat below? YES _____ NO X
- If the answer to question four is "no", have the interests of all owners been consolidated by communitization agreement or otherwise
YES X NO _____ If answer is "yes", give type of consolidation JOA / Back-in after payout
- If the answer to question four is "no", list all the owners and their respective interests below:

Owner Clayton Williams Energy, Inc.	Land Description Sec. 15, T27N, R9E, G. & S.R. Meridian
	Coconino County, Arizona



CERTIFICATION

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Matt Swierc

Name

Matt Swierc, Production Superintendent

Position

Production Superintendent

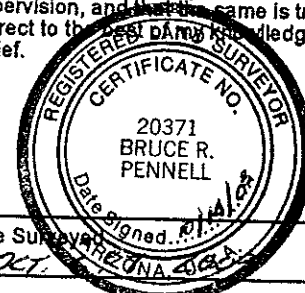
Company

Clayton Williams Energy, Inc.

Date

October 14, 2003

I hereby certify that the well location shown on the plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.



Date Surveyed: **OCT 14 2003**

Registered Land Surveyor

Bruce R. Pennell

Certificate No.

RLS 20371

PROPOSED CASING PROGRAM

Size of Casing	Weight	Grade & Type	Top	Bottom	Cementing Depths	Sacks Cement	Type
8-5/8"	32#	K-55	0	1500'	1500' - surface	790	Light Std. &
5-1/2"	17#	J-55	0	6600'	6600' - 3300'	700	50/50 Poz Pre
					3300' - surface	510	Light Std. &

CLAYTON WILLIAMS ENERGY, INC.

Babbitt Lease

Well No. 1

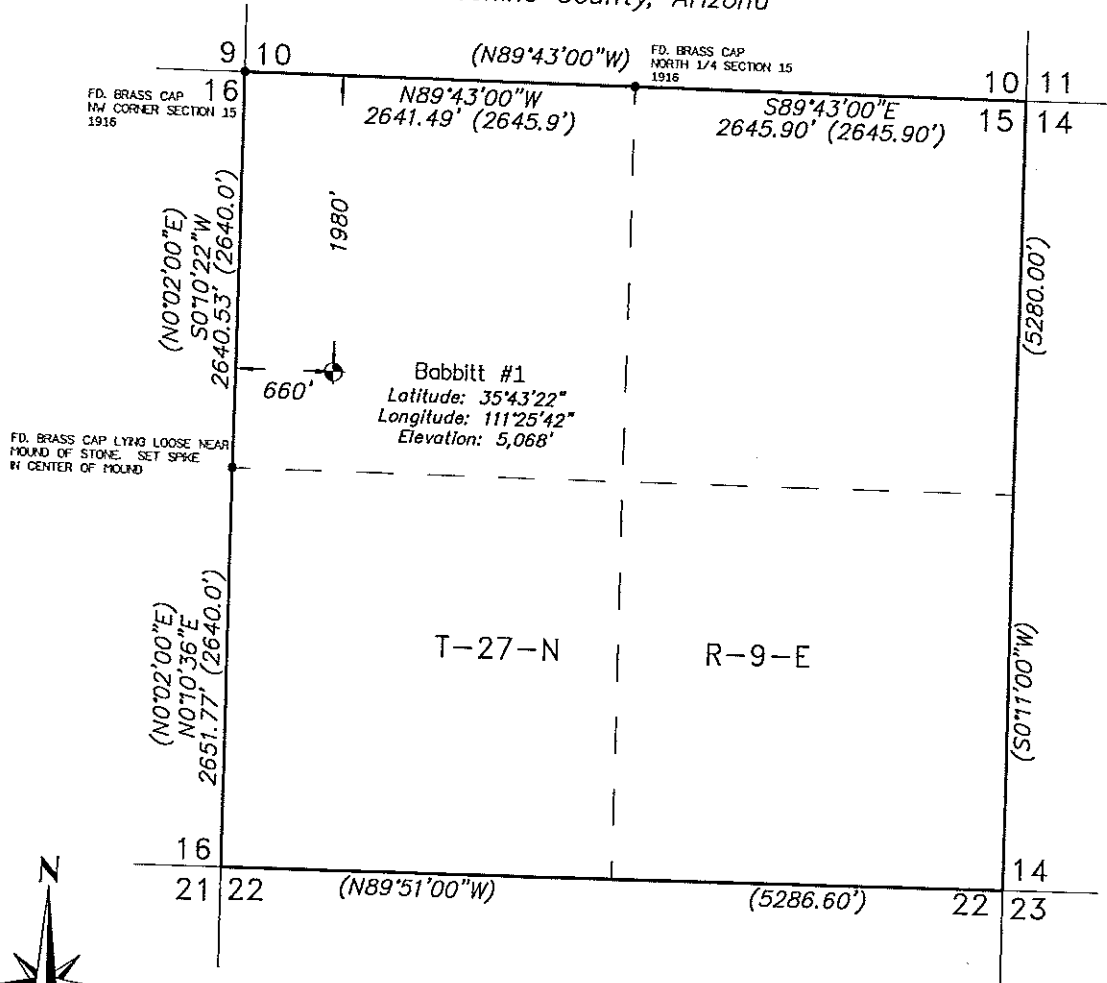
1980' From the North Line

660' From the West Line

Section 15, T-27-N, R-9-E,

G. & S.R. Meridian

Coconino County, Arizona



Bearings and Distances Shown
Inside () Indicate Record Information



SCALE: 1" = 1000'

I, Bruce R. Pennell hereby certify that this plat represents
a true and correct survey made under my supervision on
the ground October 6 & 7, 2003.



Bruce R. Pennell

Registered Professional Land Surveyor No. 20371
Date: 10/9/03

BRP ENTERPRISES, INC.

(BRUCE R. PENNELL)

P.O. BOX 51622, MIDLAND, TEXAS 79710

VOICE: (432) 570-6256

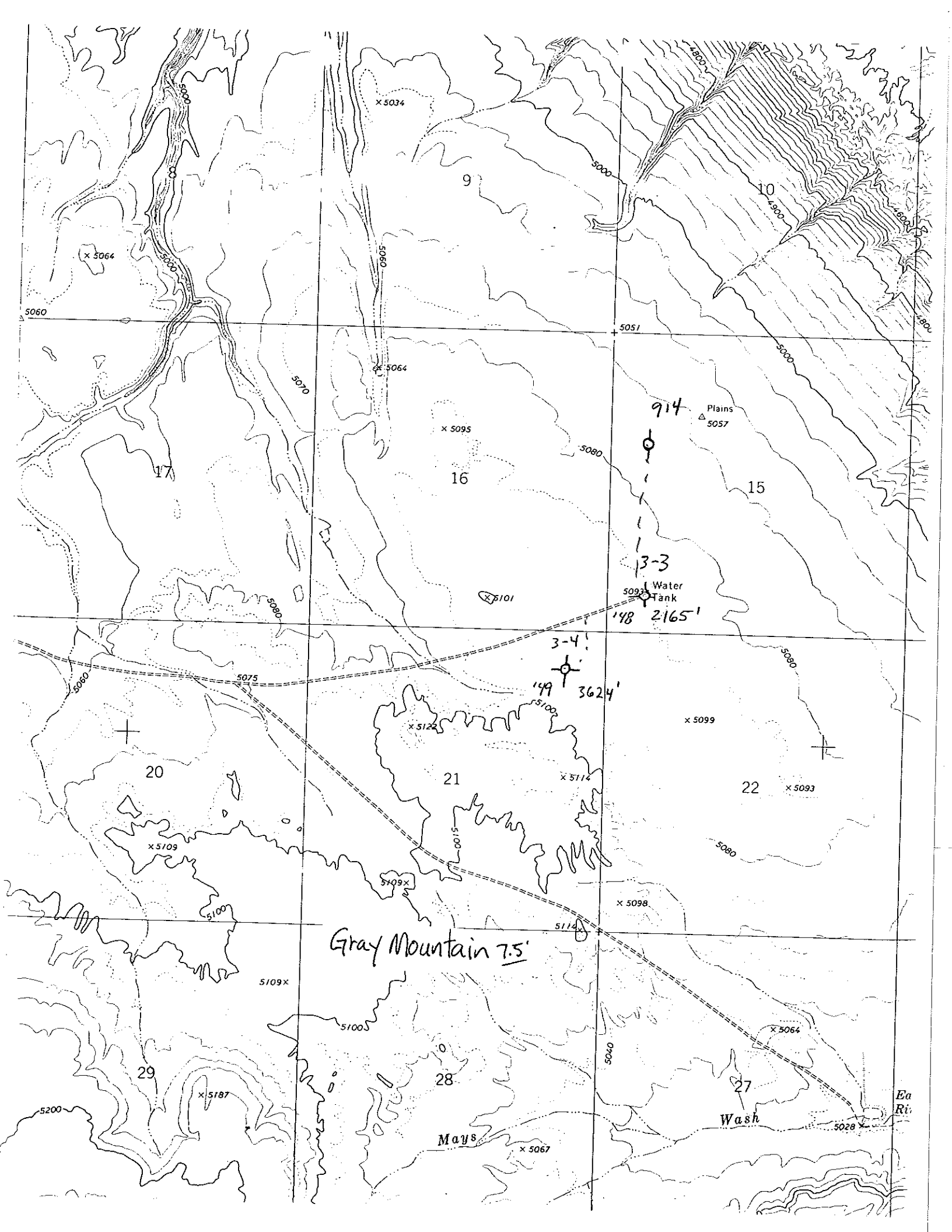
FAX: (432) 682-3262

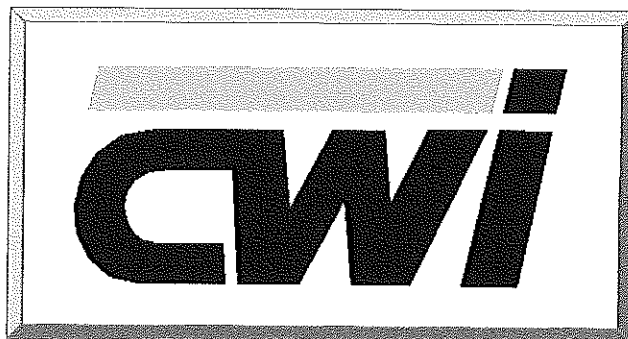
MOBILE: (432) 528-1027

SURVEY CREW: Bruce Pennell - Martin Land Surveys

CAD FILE: ARIZONA\BABBITT-LOCATION PLAT

DRAWN BY: Marcus Hostes





DRILLING PROGRAM

Clayton Williams Energy Babbit #1
COCONINO COUNTY, ARIZONA
Sec 15; T27N; R9E

TOTAL DEPTH:
6,600'

Babbit #1
COCONINO COUNTY, ARIZONA

GENERAL WELL PLAN

A. BRIEF PROGNOSIS

1. MIRU conventional drilling rig. Contact the Arizona Oil & Gas Conservation Commission (**Steve Rauzi 520-770-3500 for all notifications**) and advise them of the spud time and date.
2. Drill a 12-1/4" hole to 1,500' with non-dispersed mud system. Take drift surveys every 500' or nearest dull bit. NOTE: potential lost circulation and/or water flows in this interval. Have sufficient supply of various lost circulation material on hand to handle severe losses.
3. Make short trips as required. Circulate and condition hole prior to running casing. POOH. Contact Arizona Oil & Gas Conservation Commission a minimum of 48 hrs. prior to running/cementing surface casing.
4. Run and cement 8-5/8", 32#, K-55 surface casing. (SEE TUBULAR SECTION). If cement does not circulate, run temp log and/or CBL to determine top of cement. Contact Midland office to determine what remedies will be taken. WOC 4 hours before slacking off casing weight. Total time before drill out should be a minimum 12 hours of WOC.
5. Install bradenhead placed to facilitate use of rotating head.
6. NU 11" 5K BOP'S and choke manifold. Test BOP's, choke manifold, to 250 & 3000 psi, test Hydril to 250 & 1500 psi. **Test casing to 3000 psi for a minimum of 30 minutes.** Run full accumulator test.
7. PU 7-7/8" bit and BHA (BIT, Hammer, DC's as needed) and TIH blowing casing dry with air. Drill out cement and float equipment.
8. Continue to drill 7-7/8" hole taking drift surveys every 500' to TD at 6600'. NOTE: well will be drilled with air as deep as possible, if needed, will have sufficient mud on location to mud up hole due to water or other unforeseen problems.
9. Log well with Triple Combo/Sonic (Resistivity, Density, Neutron, Sonic) from TD to casing point.
10. Run and cement 5-1/2" casing. **USE EXTREME CAUTION WHEN RUNNING THE 5-1/2" CASING.** Cement per attached cement recommendation. Bump plug with mud. Set slips with full casing weight in as cemented condition. **THE "IN AS CEMENTED CONDITION" IS THE CONDITION WHEN THE PLUG HAS BUMPED AND THE PRESSURE IS BLED OFF.**

**BABBIT #1
COCONINO COUNTY, ARIZONA**

MUD PROGRAM

<u>DEPTH (MD)</u>	<u>WEIGHT</u>	<u>WATER LOSS</u>	<u>TYPE</u>
0' - 1,500'	8.8 - 9.0	NC	Flocculated Mil Gel
1,500' - 6,600'	8.8 - 9.0	N/A drilled with air 12	Lig/gel (ONLY IF NEEDED)

TUBULAR PROGRAM

SURFACE: 8-5/8" CASING

0' - 1500' (1500') 32.00# K-55 ST&C

PRODUCTION: 5-1/2" CASING

0' - 6,600' (6,600') 17.00# J-55 LT&C

LOGGING PROGRAM

1. TRIPLE COMBO, SONIC FROM TD - 1,500'

AUXILIARY EQUIPMENT

1. AIR PACKAGE RIGGED UP AFTER SETTING SURFACE CASING.
2. MUDLOGGER ON AT SURFACE CASING, 10' SAMPLES.
3. CONVENTIONAL CORES AND DRILL STEM TESTS TO BE CALLED BY MIDLAND OFFICE BASED ON SHOWS.



CLAYTON WILLIAMS ENERGY

C. 6 DESTA DRIVE, STE 1100

REORDER FT 805 • U.S. PATENT NO. 5538290;5575508;5641183;5785353

INVOICE DATE	INVOICE NUMBER	CHECKER NUMBER	DESCRIPTION	AMOUNT
09/25/03	CK REQ 09/25	500854	APPLICATION FEE Permit to Drill Babbitt #1 Coconino Co., AZ	25.00

CHECK NUMBER	CHECK DATE	VENDOR NUMBER	VENDOR NAME
33854	9/25/03	056704	ARIZONA GEOLOGICAL SURVEY

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS

Bond Serial No. RLB0006165

That we: Clayton Williams Energy, Inc.

of the County of Midland in the State of Texas

as principal, and RLI Insurance Company

of 8 Greenway Plaza, Suite 400, Houston, TX 77046

AUTHORIZED TO DO BUSINESS WITHIN THE STATE OF ARIZONA

as surety, are held and firmly bound unto the State of Arizona and the Oil and Gas Conservation Commission, hereinafter referred to as the "Commission", in the penal sum of Ten Thousand and no/100 Dollars lawful money of the United States, for which payment, well and truly to be made, we bind ourselves, and each of us, and each of our heirs, executors, administrators or successors, and assigns jointly and severally, firmly by these presents.

The conditions of this obligation are that, whereas the above bounden principal proposes to drill a well or wells for oil, gas or stratigraphic purposes in and upon the following described land situated within the State, to-wit:

Babbitt #1, Coconino County

(May be used as blanket bond or for single well)

NOW THEREFORE, if the above bounden principal shall comply with all the provisions of the Laws of this State and the rules, regulations and orders of the Commission, especially with reference to the requirements of A.R.S. 27-516, providing for the proper drilling, casing and plugging of said well or wells, and filing with the Oil and Gas Conservation Commission all notices and records required by said Commission, then in the event said well or wells do not produce oil or gas in commercial quantities, or cease to produce oil or gas in commercial quantities, this obligation is void; otherwise it shall remain in full force and effect.

Whenever the principal shall be, and declared by the Oil and Gas Conservation Commission in violation of the Laws of this State and the rules, regulations and orders of the Commission, the surety shall promptly:

1. Remedy the violation by its own efforts, or
2. Obtain a bid or bids for submission to the Commission to remedy the violation, and upon determination by the Commission and the surety of the lowest responsible bidder, arrange for a contract between such bidder and the Commission, and make available as work progresses sufficient funds to pay the cost of remedying the violation; but not exceeding, including other costs and damages for which the surety may be liable hereunder, the amount set forth in the first paragraph hereof.

Liability under this bond may not be terminated without written permission of this Commission.

WITNESS our hands and seals, this 25th day of September, 2003

Clayton Williams Energy, Inc.

[Signature] Vice President & General Counsel
Principal

WITNESS our hands and seals, this 25th day of September, 2003

RLI Insurance Company

BY: [Signature]
Greg E. Chilson Surety Attorney-in-Fact
Christine S. Cornelius
Christine S. Cornelius (Surety, Resident Arizona Agent
(If issued in a state other than Arizona))

(If the principal is a corporation, the bond should be executed by its duly authorized officers, with the seal of the corporation affixed. When principal or surety executes this bond by agent, power of attorney or other evidence of authority must accompany the bond.)

Approved 10-16-03
Date
STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
By: SL Rains

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
Bond
File Two Copies
Form No. 2

Permit No. 914



9025 North Lindbergh Dr. • Peoria, IL 61615
(309) 692-1000 or (800) 645-2402

RLB0006165

POWER OF ATTORNEY RLI Insurance Company

Know All Men by These Presents:

That the RLI INSURANCE COMPANY, a corporation organized and existing under the laws of the State of Illinois, and authorized and licensed to do business in all states and the District of Columbia does hereby make, constitute and appoint: GREG E. CHILSON in the City of HOUSTON, State of TEXAS, as Attorney-in-Fact, with full power and authority hereby conferred upon him to sign, execute, acknowledge and deliver for and on its behalf as Surety and as its act and deed, all of the following classes of documents to-wit:

\$10,000.00

Indemnity, Surety and Undertakings that may be desired by contract, or may be given in any action or proceeding in any court of law or equity; policies indemnifying employers against loss or damage caused by the misconduct of their employees; official, bail and surety and fidelity bonds. Indemnity in all cases where indemnity may be lawfully given; and with full power and authority to execute consents and waivers to modify or change or extend any bond or document executed for this Company, and to compromise and settle any and all claims or demands made or existing against said Company.

The RLI INSURANCE COMPANY further certifies that the following is a true and exact copy of a Resolution adopted by the Board of Directors of RLI Insurance Company, and now in force to-wit:

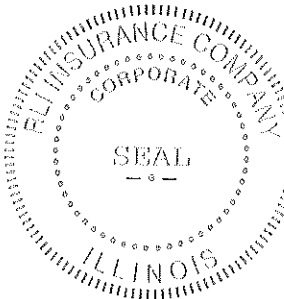
"All bonds, policies, undertakings, Powers of Attorney, or other obligations of the corporation shall be executed in the corporate name of the Company by the President, Secretary, any Assistant Secretary, Treasurer, or any Vice President, or by such other officers as the Board of Directors may authorize. The President, any Vice President, Secretary, any Assistant Secretary, or the Treasurer may appoint Attorneys-in-Fact or Agents who shall have authority to issue bonds, policies, or undertakings in the name of the Company. The corporate seal is not necessary for the validity of any bonds, policies, undertakings, Powers of Attorney, or other obligations of the corporation. The signature of any such officer and the corporate seal may be printed by facsimile."

(Blue shaded areas above indicate authenticity)

IN WITNESS WHEREOF, the RLI Insurance Company has caused these presents to be executed by its PRESIDENT with its corporate seal affixed this

ATTEST:

Camille J. Hensey
Corporate Secretary



By: Jonathan E. Michael
President

State of Illinois)
County of Peoria) SS

On this 25 day of Sept. 2003 before me, a Notary Public, personally appeared Jonathan E. Michael and Camille J. Hensey, who being by me duly sworn, acknowledged that they signed the above Power of Attorney as President and Corporate Secretary, respectively, of the said RLI INSURANCE COMPANY, and acknowledged said instrument to be the voluntary act and deed of said corporation.

Cherie L. Montgomery
Notary Public



ORGANIZATION REPORT

Full Name of the Company, Organization, or Individual
Clayton Williams Energy, Inc.

Mailing Address and Phone Number

Six Desta Drive, Suite 3000, Midland, TX 79705

(432) 682-6324

Plan of Organization (State whether organization is a corporation, joint stock association, firm or partnership, or Individual
Corporation

Purpose of Organization (State type of business in which engaged)

Independent exploration and production company that develops and produces oil and natural gas
 If a reorganization, give name and address of previous organization

If a foreign corporation, give
 (1) State where incorporated

Delaware

(2) Name and mailing address of state agent
CT Corporation System
3225 N. Central Avenue
Phoenix, AZ 85012

(3) Date of permit to do business in state

Arizona 8-16-2002

Principal Officers or Partners (if partnership)
 NAME

TITLE

MAILING ADDRESS

Clayton W. Williams, Jr.

President

Six Desta Drive, Suite 6500
Midland, TX 79705

L. Paul Latham

Chief Operating Officer &
Executive Vice-President

Six Desta Drive, Suite 6500
Midland, TX 79705

Mel G. Riggs

Senior Vice-President, Finance

Six Desta Drive, Suite 6500
Midland, TX 79705

T. Mark Tisdale

Vice-President and General Counsel

Six Desta Drive, Suite 6500
Midland, TX 79705

Jerry F. Groner

Vice-President of Land and
Lease Administration

Six Desta Drive, Suite 6500
Midland, TX 79705

DIRECTORS NAME

MAILING ADDRESS

Clayton W. Williams, Jr., Chairman of the Board

Six Desta Drive, Ste. 6500, Midland, TX 79705

L. Paul Latham, Director

Six Desta Drive, Ste. 6500, Midland, TX 79705

Mel G. Riggs, Director & Secretary-Treasurer

Six Desta Drive, Ste. 6500, Midland, TX 79705

Jerry F. Groner, Director

Six Desta Drive, Ste. 6500, Midland, TX 79705

CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the Vice President & General Counsel of the
Clayton Williams Energy Inc (company), and that I am authorized by said company to make this report; and that this
 report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

Signature

10-14-03

Date

STATE OF ARIZONA

OIL & GAS CONSERVATION COMMISSION

Organization Report

File One Copy

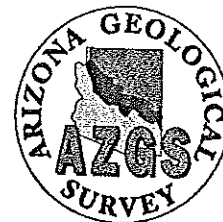
Form No. 1



Janet Napolitano
Governor

State of Arizona
Arizona Geological Survey

416 W. Congress, Suite 100
Tucson, Arizona 85701
(520) 770-3500
www.azgs.az.gov



M. Lee Allison
Director and State Geologist

December 12, 2006

Ms. Betsy Luna
Clayton Williams Energy
Six Desta Drive, Suite 3000
Midland TX 79705

914

Re: Clayton Williams #1 Babbitt well; State Permit #914
RLI Insurance Company Bond RLB0006165

Dear Ms. Luna:

Our records indicate that Clayton Williams Energy drilled and abandoned the referenced well in compliance with applicable rules of the Oil and Gas Conservation Commission. As a result, this letter constitutes written permission to terminate liability under the referenced bond.

Sincerely,

Steven L. Rauzi
Oil & Gas Administrator

c J. Dale Nations, Chairman, Oil and Gas Conservation Commission



CLAYTON WILLIAMS ENERGY, INC.
December 12, 2006

Mr. Steven L. Rauzi
Oil & Gas Administrator
STATE OF ARIZONA
Arizona Geological Survey
416 W. Congress, Suite 100
Tucson, Arizona 85701

914

Re: Clayton Williams Energy, Inc.
Performance Bond RLB0006165
Dated September 25, 2003

Babbitt #1
API No. 02-005-20034
Coconino County, Arizona

Dear Sir:

This letter serves as a request to release the above captioned performance bond. In December, 2003, Clayton Williams Energy, Inc. drilled the above captioned well, which resulted in a dry hole. At this time, Clayton Williams Energy, Inc. no longer has any leasehold interests nor any future plans to conduct oil and gas operations within the State of Arizona.

Should you require further, please contact me at 432-688-3240. My e-mail address is bluna@claytonwilliams.com.

Sincerely yours,

A handwritten signature in cursive script that reads "Betsy Luna".

Betsy Luna
Engineering Technician

Subject: #1 Babbitt

From: Steve Rauzi <Steve.Rauzi@azgs.az.gov>

Date: Mon, 10 Jan 2005 07:31:11 -0700

To: mswierc@claytonwilliams.com

914

Matt, It has been over a year since Clayton Williams Energy drilled and abandoned the referenced well. Do you anticipate Claytonm Williams requesting release of its surety bond any time soon? Steve

1-27-05

Call CWE & talk to Betsy Luna about bond.

Lesses may expire soon & prob release.

She'll talk to Jerry Gomer, UP Land & get back next week.

Subject: RE: Sundry Notices
From: Alan Ameans <ameans@cambrianmgmt.com>
Date: Fri, 28 May 2004 07:55:18 -0500
To: 'Steve Rauzi' <steve.rauzi@azgs.az.gov>

Steve

It will be a distant offset to the Clayton Williams well. They plan to drill later this year. Possibly late summer, early fall. It is too early to tell if our client is going to have us permit or if they are going to do it.

Alan

Alan D. Means, PE
Cambrian Management, Ltd

-----Original Message-----

From: Steve Rauzi [mailto:steve.rauzi@azgs.az.gov]
Sent: Thursday, May 27, 2004 5:15 PM
To: Alan Ameans
Subject: Re: Sundry Notices

Alan,

The 11-18 State casing settings are adequately described on the daily drilling reports that you submitted.

I was not aware of a planned hole in Coconino Co but your proposed casing depths sound adequate. Is this a follow-up to the hole drilled by Clayton Williams late last year? Are you preparing an application for a permit to drill?

Steve

Alan Ameans wrote:

Steve,

Do we need to file individual "Sundry Notices" for casing settings on the Ridgeway AZ 11-18? I mailed the water analysis to you today. Also, we have been contacted by a local company here in Midland to drill a well in Coconino County, AZ. We plan to run 9 5/8" casing to around 300'-500' for well control and then set 7" thru the freshwater at 3500'. Do you see a problem with these setting depths? The well is located on the Babbitt Ranch north of Flagstaff.

Thanks

Alan D. Means, PE
Cambrian Management, Ltd



CLAYTON WILLIAMS ENERGY, INC.

May 17, 2004

Mr. Steven L. Rauzi
Arizona Geological Survey
416 W. Congress, Suite 100
Tucson, Arizona 85701

914

Re: Clayton Williams Energy Babbitt #1
Coconino County, Arizona

Dear Steve;

I've been completely remiss in failing to contact you sooner than this regarding the well cuttings samples from the Babbitt #1, and I apologize if it has caused any undue concern. I had meant to send them with some additional data, but with oil prices topping \$40 per barrel and gas pushing \$6.50 per mcf, it's amazing how quickly things can get lost in the shuffle. The daily crush of drilling activity and the clamor for prospects can create havoc with remembering necessary details.

→ I bundled and boxed four cartons of cuttings samples from the Babbitt #1 and will ship them under separate cover via UPS or other form of ground freight. Hopefully the carrier won't bounce them around too much and you'll get good 10' samples rather than a pile of sand in the bottom of the box. In the interim, I've enclosed a copy of a petrologic evaluation of the Precambrian Chuar rotary core samples for your files. In and of itself the data alone is valuable, and certainly with the interpretation the study has added value. It doesn't appear that any of the results are inconsistent with our knowledge of the Precambrian section. Overall the report is fairly comprehensive and not only utilizes standard petrographic evaluation but also incorporates SEM, x-ray diffraction and source rock studies. I'm reasonably certain that you'll find the study to be an interesting read, and I'm sure this is something that has not been done before on Precambrian borehole samples. If additional copies of the report are needed, I've included a CD that is easily accessed using Acrobat Reader.

If you have any questions or concerns about any of the data, please contact me at your convenience. We will continue to evaluate our acreage in Arizona and hopefully define prospective drilling locations. I'll keep you informed of any progress in this area.

RECEIVED

MAY 19 2004

Sincerely,

Michael A. Senich

Michael A. Senich, PhD

Received
Thursday
May 27
SLR

Subject: #1 Babbitt

From: Steve Rauzi <Steve.Rauzi@azgs.az.gov>

Date: Tue, 11 May 2004 09:09:28 -0700

To: Matt Swierc <mswierc@claytonwilliams.com>

Matt,

When does Clayton Williams Energy anticipate submitting the washed and dried cuttings, core analyses report, and remaining core samples for the #1 Babbitt?

Steve



914

1. Venoco Inc., Carpinteria, Calif., in a program with the US Department of Energy's Office of Fossil Energy, used new seismic analysis tools, modern logging and reservoir modeling to increase production from five wells by an average 600 bbl each in **South Elfwood** field 2 miles (3.2 km) offshore Santa Barbara, Calif. The field, accessed from the Holly platform, has produced only 49 million bbl, or 5%, of the estimated 1 billion bbl of oil in place. Venoco also is considering installation of a third 350-ton, 50-ft (15-m) high seep tent on the ocean floor to capture oil and gas from seeps, said the DOE.

2. Clayton Williams Energy Inc., Midland, Texas, plugged and abandoned its **1 Babbitt** wildcat about 6 miles (10 km) south of the town of Cameron in Coconino County, Ariz. The well in Section 15-27n-9e produced water in production tests of Cambrian Tapeats from perforations between 3,179 ft and 3,480 ft (970 m and 1,061 m) and from 3,524 ft to 3,534 ft (1,075 m to 1,078 m). The company drilled the well to 4,350 ft (1,327 m) and plugged back to 3,775 ft (1,151 m). The nearest production to the well is in the Four Corners area about 130 miles (209 km) to the northeast, said IHS Energy.

3. Stone Energy Corp., Denver, Colo., tested 4.5 MMcf of gas, 48 bbl of condensate and 85 bbl of water a day from its **5-20 Tough Creek-Federal** discovery in Wyoming's Wind River Basin. Stone drilled the wildcat to 12,160 ft (3,709 m) in Section 20-39n-92w in northeastern Fremont County. It ran tests through five fractured Lance intervals between 8,924 ft and 10,376 ft (2,722 m and 3,165 m), but a bridge plug at 10,500 ft (3,202 m) isolated two deeper fractured Lance intervals to 12,073 ft (3,682 m). The nearest production was in the abandoned **Steffen Hill** field about 2½ miles (4 km) to the northwest. The well flowed 700 MMcf of gas and 600 bbl of water a day and was never put on production.

4. The Gruy Petroleum Management Co. subsidiary of Magnum Hunter

Resources Inc., Irving, Texas, permitted a 3,000-ft (915-m) wildcat to the Crevasse Canyon member of the Mesaverde 14 miles (22.5 km) east-northeast of Crownpoint, N.M., in the southern San Juan Basin. The **1 Seven Lakes 21-fee** is in Section 21-18n-10w in McKinley County about a mile and a half (2.4 km) southeast of **Seven Lakes** field, which produces oil from Menefee above 500 ft. Gruy permitted two more 3,000-ft (915-m) wildcats to the same formation at the **1 NW Hospah 29-fee** and the **1 NW Hospah 31-fee** about 5 miles (8 km) to the east-southeast.

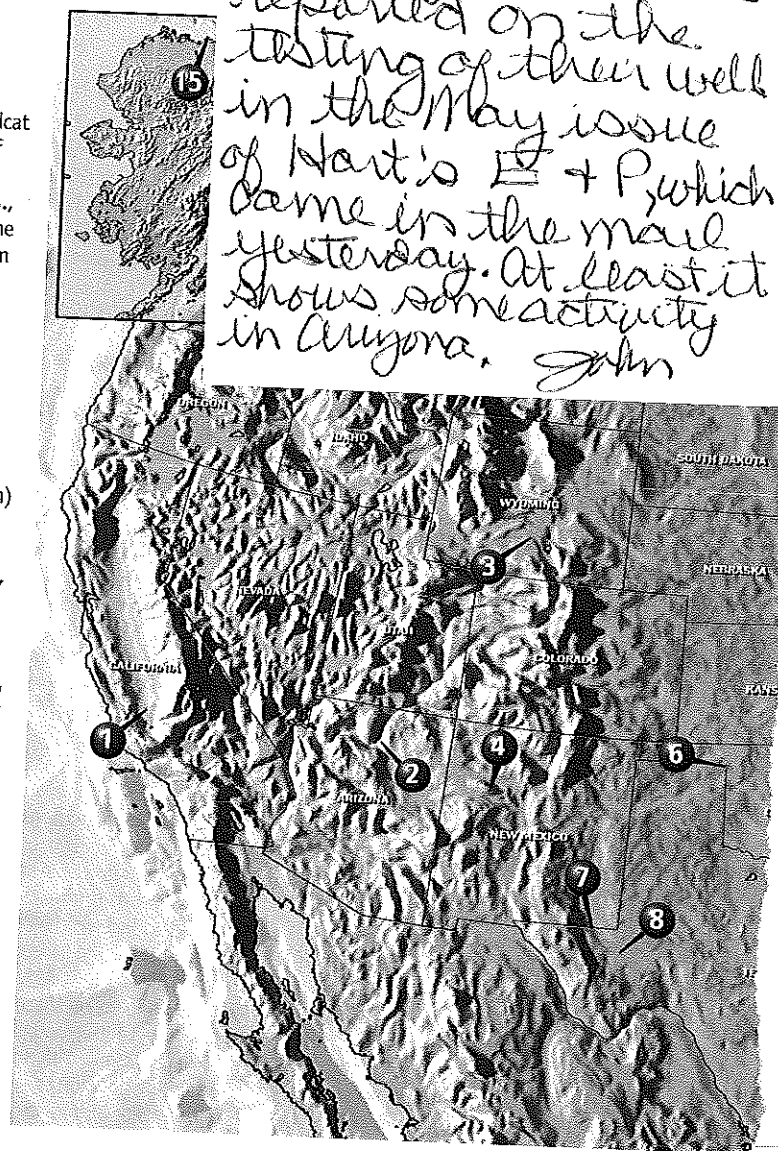
5. TBK Energy Co., based in Norman, Okla., completed a Wilcox discovery in western Seminole County slightly less than a mile (1.6 km) east of Maud, Okla. The **1-35 Elijah William**, located in Section 35-8n-5e, initially tested swabbing 173 bbl of 38°-gravity oil and 30 Mcf of gas daily, with no water, through untreated perforations in the First Wilcox between 4,489 ft and 4,491 ft (1,369 m and 1,470 m). The 4,680-ft (1,427-m) prospect is approximately a mile (1.6 km) from two fields — Maud Southeast and Maud East, which produced 638,000 bbl of crude from 11 wells tapping reservoirs in the Wilcox between 4,300 ft and 4,400 ft (1,312 m and 1,342 m).

6. Courson Oil & Gas Inc., based in Perryton, Texas, completed a Mississippian discovery in northwestern Ochiltree County (Texas Railroad Commission District 10) approximately 10 miles (16 km) northwest of Perryton, less than one mile (1.6 km) south of the Oklahoma border. The **1 Batman**, located in Subdivision 1, T. Edwards Survey, A-73, is producing from a treated zone in the Chester between 7,354 ft and 7,381 ft (2,243 m and 2,251 m) with flowing tubing pressure gauged at 808 psi on a 1½-in. choke. Nearly a mile (1.6 km) to the southwest is the 1980 **Edwards** field opener, the **1 Darrell Morris**. This well was initially tested in the Upper Morrow between 7,325 ft and 7,336 ft (2,234 m and 2,237 m) flowing 5.1 MMcf/d of gas.

7. A New Mexico wildcat has been completed in southernmost Lea County by Pure Resources LP, based in Midland, Texas. The **1 Madera "36" State**, located in irregular Section 36-26s-34e, was tested flowing 5.3 MMcf of gas, 414 bbl of 55.6° condensate and no water daily through acidized perforations in the Strawn between 14,518 ft and 15,064 ft (4,428 m and 4,595 m). The 16,389-ft (4,999-m) well was originally slated to target the Morrow, IHS Energy said. Two-thirds of a mile (1 km) to the northeast is the **1 Madera "30" Federal**, the only current producer in **Jabalina** field. It was completed in 1994 flowing 2.6 MMcf/d of gas from the Atoka between 15,097 ft and 15,121

ft (4,604 m and 4,612 m). The 15,555-ft (4,744-m) well has yielded 3.63 Bcf of gas, 103,953 bbl of condensate and 868 bbl of water.

8. In easternmost Reeves County (RRC 8), about 8 miles (13 km) northwest of the town of Cayanosa, Texas, Midland, Texas-based TMBR/Sharp Drilling Inc. completed a horizontal discovery. The **1H Ligon "22" State**, located in Section 22, Block 7, H&GN Survey, A-4355, had an absolute open flow calculated at 1.17 MMcf/d of gas through a Devonian interval between 13,006 ft and 15,504 ft (3,967 m and 4,729 m). Flowing tubing pressure was gauged at 1,031 psi. The well was drilled to a total depth of 15,553 ft



May 13, 2004
Dear Steve,
Clayton Williams reported on the testing of their well in the May issue of Hart's E & P, which came in the mail yesterday. At least it shows some activity in Arizona. John

V. 77, no. 32

914

El Paso to sell Canadian unit to BG Group for \$346 million

EL PASO Corp, Houston, has agreed to sell its El Paso Oil & Gas Canada Inc subsidiary to the U.K.'s BG Group plc for approximately (U.S.) \$346 million.

The sale encompasses approximately 690,000 net acres of leasehold, including properties that produced a net average of 57 million cu ft of natural gas equivalent (MMcfge) daily as of December 31, 2003.

BG believes the acreage holds "considerable" exploration potential. The acreage is located in four core areas in the Western Canadian Sedimentary Basin—Bubbles and Ojay/Sundown (British Columbia) and Waterton and Copton (Alberta). The company characterized the acquisition as another step forward in building its position in the North American gas market.

BG, citing an independent evaluation by Ryder Scott, said the properties contain proved reserves, before royalties, of 132 billion cu ft of natural gas equivalent (Bcfe), of which approximately 84 percent is natural gas.

El Paso Canada has existing offices in Calgary, Alberta, and Fort St John, British Columbia.

The transaction, which is expected to close in March, covers all of El Paso's Canadian assets with the exception of the Caribou natural gas processing plant, firm capacity on the Alliance pipeline system, and interests

in Nova Scotia. El Paso will use the proceeds to repay debt and for other corporate purposes.

This sale supports El Paso's recently announced long-range plan to reduce the company's debt, net of

cash, to approximately \$15 billion by year-end 2005. To date, the company has announced or closed approximately \$2.9 billion of the \$3.3-3.9 billion of assets sales targeted under the plan.

Williams plugs remote Arizona wildcat

MIDLAND INDEPENDENT Clayton Williams Energy Inc has plugged and abandoned a wildcat drilled in north-central Arizona nearly six miles south of the town of Cameron (RMRR 10-23-03 & 1-12-04).

The 1 Babbitt, sw nw 15-27n-9e, east-central Coconino County, yielded water on production tests of the Cambrian Tapeats sand perforated at 3170-3480 and 3524-34 ft. It was set up as a 7000-ft test to Precambrian and drilled by Key Energy Services' Rig #54 to a total depth of 4350 ft and plugged back to 3775 ft.

The wildcat is about 130 miles southwest of the nearest production, at fields in the Four Corners region. Upper Valley field, a Kaibab oil pool in southern Utah, is about 135 miles to the north.

Key Energy reports higher net income for fourth quarter, full year 2003

KEY ENERGY Services Inc reported net income of \$4.0 million (\$0.03 a share) on revenues of \$231.7 million for the fourth quarter of 2003, compared to fourth-quarter 2002 net income of \$1.1 million (\$0.01 per share) on revenues of \$205.1 million.

For the full-year 2003, the Midland-based company reported net

income of \$7.3 million (\$0.06 per share) on revenues of \$926.9 million, versus a net loss of \$14.9 million (\$0.12 a share) on revenues of \$742.2 million the year before.

Key, the world's largest rig-based, onshore well service company, owns and/or operates approximately 1,498 well service rigs, 2,448 oilfield service vehicles, as well as 76 drilling rigs.



Hufford, Horstman, Mongini, Parnell & McCarthy PC
a t t o r n e y s a t l a w

February 10, 2004

*C. Benson Hufford
Patrice M. Horstman
Eve A. Parnell
Philip (Jay) McCarthy, Jr.
E. Duane Weston*

*R. Gehl Tucker
Alexandra Shroufe
Heather Christenson
David A. Womochil
Angelee L. Van Hon*

*Kelly J. Shira
* Michael E. J. Mongini
* Bill Jeffery
* Sara J. Powell
* Corbin Vandemoer
of counsel

Arizona Geological Survey
Att: Steve Rauzi
Oil and Gas Administrator
416 W. Congress, Ste. 100
Tucson, AZ 85701

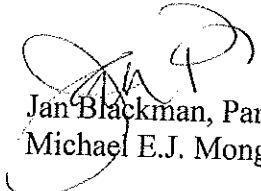
RECEIVED
FEB 12 2004

Re: Well on Babbitt property

Dear Mr. Rauzi:

Enclosed please find the well document signed by William Cordasco on behalf of Babbitt Ranches.

Sincerely,


Jan Blackman, Paralegal to
Michael E.J. Mongini

/jb
Enclosure
cc: Client



CLAYTON WILLIAMS ENERGY, INC.

January 30, 2004

RECEIVED
FEB 02 2004

VIA CERTIFIED MAIL

Babbitt Ranches, LLC
113 N. San Francisco, Ste. 211
Flagstaff, AZ 86002
Attn: Bill Cardasco

914

Re: Babbitt #1
Coconino County, Arizona
Section 15, T27N, R9E

Mr. Cardasco,

I received a note from Mr. Steve Rauzi, the Oil and Gas Administrator for the State of Arizona Geological Survey indicating that he has not yet received the Form 26, which legally releases the well to Babbitt Ranches for future use as a water well.

If the form is not filed the state will make us go back and plug the well to the surface.

I am enclosing another form that has all of the legal description already filled in. If you will sign and have notarized and sent to the address at the top of the form to the attention of Steve Rauzi, all of the state requirements will be satisfied.

We appreciate your assistance in getting this finalized.

Sincerely yours,

Matt Swierc
Production Superintendent
Clayton Williams Energy, Inc.

CC: Steve Rauzi
Regulatory File

To: Oil and Gas Administrator
Arizona Geological Survey
416 W. Congress, Suite 100
Tucson, Arizona 85701

This is to advise you that I accept the abandoned oil or gas exploration well, known as the
Babbitt #1, located on the SW / NW (quarter-quarter) of Section
15, Township 27 N, Range 9 E, County of Coconino, Arizona, as a water well.

I accept full responsibility for the proper maintenance and use of the above well, including its final
plugging, in compliance with rules of the Arizona Department of Water Resources (12 A.A.C. 15).

I understand that I am responsible for compliance with the provisions of the State Groundwater Code,
A.R.S. Title 45, Ch. 2, Article 10, and with any applicable requirements of the federal government.

Signature _____

Address _____

* * * * *

State of _____

County of _____

On this, the ____ day of _____, 20____, before me _____,
the undersigned officer, personally appeared _____, known
to me (or satisfactorily proven) to be the person whose name is subscribed to the within instrument and
acknowledged that _____ executed the same for the purpose stated
therein contained.

In witness whereof I hereunto set my hand and official seal.

Notary Public _____

My commission expires _____

OIL & GAS CONSERVATION COMMISSION
WATER WELL ACCEPTANCE
FORM 26 - File one copy

Permit Number 914

RE: Water Well Acceptance Form

Subject: RE: Water Well Acceptance Form
From: "Matt Swierc" <mswierc@claytonwilliams.com>
Date: Fri, 30 Jan 2004 14:33:29 -0600
To: "Steve Rauzi" <steve.rauzi@azgs.az.gov>

I sent them a certified letter and another Form 26. You will get a copy of my letter. Sorry for the delay.
Thanks for the reminder,
Matt

-----Original Message-----

From: Steve Rauzi [<mailto:steve.rauzi@azgs.az.gov>]
Sent: Friday, January 30, 2004 1:44 PM
To: Matt Swierc
Subject: Water Well Acceptance Form

Matt,

A reminder that I have still not received the notarized water-well acceptance form from Babbitt Ranches.

Steve



CLAYTON WILLIAMS ENERGY, INC.

January 14, 2004

Mr. Steven L. Rauzi
Arizona Geological Survey
416 W. Congress, Suite 100
Tucson, Arizona 85701

Re: Clayton Williams Energy Babbitt #1
Coconino County, Arizona

914

Dear Steve;

This letter and data could be much more exciting if results of the Babbitt #1 had been better, but unfortunately they weren't. Needless to say I was more than disappointed, particularly as many of the indications while drilling were very encouraging. It's a huge letdown after months of planning and anticipation when a well has to be plugged and abandoned.

From a geological perspective the results of the Babbitt #1 were minimally as expected and in some instances better than expected. We were hoping for at least 50' of 9% porosity Tapeats sand and drilled an incredible 200'+ of 14% porosity sand. The overlying Bright Angel shale formed a good seal and dipmeter data corroborated the surface anticlinal structure. Prior to cutting a fault in the Precambrian, we even encountered a good section of dark gray-black Chuar shale that appeared to be highly organic. With source, seal and reservoir, I felt good about the potential for finding gas in the Tapeats. Regrettably, after three days of swabbing there was no gas recovery and 100% water cut. A marked increase in chlorides indicated that the recovery was produced formation water and not freshwater drilling fluid.

I have enclosed wireline and mudlog data as well as a summary geological report for the Babbitt #1. You should find a composite density-neutron porosity log, composite dipole sonic, composite array induction, formation microimager data from the 11/10 and 11/24/03 wireline logging runs, interpreted dip data from both runs, CMR data, and a composite 5" = 100' scale mudlog. I will re-box the dried drill cuttings and send them to you under separate cover (current boxes likely wouldn't survive in the mail). Rotary cores were also cut in the Precambrian section and they are still being analyzed. When analyses are complete, I will forward any remaining core samples to you.

At this time I'm not certain what Clayton Williams Energy plans to do on any of the remaining Arizona prospects and acreage. We will need to assess risks and weigh the merits against other projects and budget constraints. I will keep you informed of any future plans. In the meantime, if you have any questions or concerns about our operations, please feel free to call me at 432-688-3047. I'm looking forward to another chance to find some oil and gas in Arizona.

Sincerely,

A handwritten signature in black ink that reads "Michael A. Senich". The signature is written in a cursive, flowing style.

Michael A. Senich
Petroleum Geologist



CLAYTON WILLIAMS ENERGY, INC.

January 14, 2004

Via Federal Express Overnight Service

Mr. Steven L. Rauzi
Oil & Gas Administrator
STATE OF ARIZONA
Arizona Geological Survey
416 W. Congress, Suite 100
Tucson, Arizona 85701

914

Re: Babbit No. 1 Well
Coconino County, Arizona
Sec. 15, T27N, R9E

Dear Steve:

Please find enclosed the following as required by the State of Arizona for the above captioned well.

- Form 25, Sundry Notice through final plugging
- Form 4, Well Completion Report and Well Log
- Form 10, Plugging Record

Please note copies of the electric logs were sent to you under separate cover by our Geologist, Mike Senich. I appreciate all the help you've given us and look forward to working with you on future endeavors. Should you require further, please contact me at 432-688-3251. My e-mail address is mswierc@claytonwilliams.com.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Matt Swierc". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Matt Swierc
Production Superintendent

Enclosures

Re: CWEI Babbitt #1, Coconino County, AZ

Subject: Re: CWEI Babbitt #1, Coconino County, AZ
From: Steve Rauzi <Steve.Rauzi@azgs.az.gov>
Date: Wed, 14 Jan 2004 13:53:16 -0700
To: Betsy Luna <bluna@claytonwilliams.com>

Betsy,

It was good to hear from you. Babbitt would mail it directly to me. I haven't yet received it so a reminder from the operator would be in order.

Steve

Betsy Luna wrote:

Subject: CWEI Babbitt #1, Coconino County, AZ
From: "Betsy Luna" <bluna@claytonwilliams.com>
Date: Wed, 14 Jan 2004 14:35:22 -0600
To: <steve.rauzi@azgs.az.gov>
CC: "Matt Swierc" <mswierc@claytonwilliams.com>

Steve,

Hope you're doing well and the New Year is treating you right so far!

We are completing our final paperwork to send you on the Babbitt #1 and should have out to you in the next few days. You mentioned in your e-mail to Matt Swierc we need to send in the water well acceptance form from the Babbitt Ranches. We were under the impression that Babbitt would mail it directly to you. If you have not yet received it, please let me know and we'll contact them.

Once again, thanks for all your help and hopefully the next well will be a successful completion.

Betsy Luna
Clayton Williams Energy, Inc.
Six Desta Drive, Suite 3000
Midland, TX 79705
ofc: (432) 682-6324
direct: (432) 688-3240
fax: (432) 688-3225

V-77, no. 6.

EnCana stakes northwestern Piceance Basin wildcat

ENCANA OIL & Gas (USA) Inc has received a drilling permit for an 11,300-ft exploratory test on the northwestern flank of the Piceance Basin approximately 22 miles southeast of Rangely, Colorado.

The 2 Left Fork 6502, ne nw 23-2s-99w, western Rio Blanco County, is designed to evaluate the gas potential of the Williams Fork and Rollins members of Mesaverde and the deeper Mancos "B" zone. Ground elevation at the site is 7059 ft. Patriot Drilling has the contract.

The venture is nearly two miles south of a 1982 Mancos discovery that was subsequently incorporated into the Sagebrush Hills field area. That 11,026-ft well, the David M. Munson Inc 11-2-99 Sagebrush Shield in sw nw 11-2s-99w, was completed flowing 220,000 cu ft of gas and 18 bbls of water per day from a fracture-stimulated Mancos interval at 10,681-10,802 ft. Formation tops include Mesaverde at 6130 ft, Castlegate 9333, Mancos 10,098 and Mancos "B" at 10,559 ft, measured from a kelly bushing elevation of 7024 ft. It produced 124.3 million cu ft of gas and 4,792 bbls of water from Mancos before being shut in in mid-1995 for a recompletion attempt in the shallower Mesaverde. Conoco Inc subsequently recompleted the 11-2-99 Sagebrush Shield (redesignated the 4506 Sagebrush Hills II-Federal) in a sand-fract Mesaverde interval at 6682-7074 ft for an initial flowing

potential of 375,000 cu ft of gas and 171 bbls of water daily. It has since produced about 150 million cu ft of gas from Mesaverde.

Approximately two miles to the northwest is a Mancos producer on the southeastern end of the northwest-southeast trending Sagebrush Hills field. That 10,411-ft well, the 16-2-99 Munson in ne ne 16-2s-99w, was completed by Munson in late 1984 flowing 225,000 cu ft of gas, one bbl of condensate and 41 bbls of water per day from a sand-fract Mancos interval at 9982-10,190 ft. Log tops include Mesaverde at 5730 ft, Castlegate 8760, Mancos "A" 9500 and Mancos "B" at 9950 ft,

measured from a 7239-ft kelly bushing elevation. It has produced approximately 56 million cu ft of gas from Mancos and at last report was continuing to produce at stripper rates.

Eight miles to the north, EnCana has location staked for an 11,600-ft test of Mesaverde and Mancos at the 6601 Canary in se ne 10-1s-99w (RMRR 9-15-03). No activity has been reported at that site.

In an area 10 miles to the northeast, Bass Enterprises Production has plans to drill a number of Mesaverde wildcats in the Yellow Creek area in townships 1s-98w and 1n-98w.

Williams testing Cambrian zone at remote Arizona wildcat

MIDLAND INDEPENDENT Clayton Williams Energy Inc is conducting production tests of the Cambrian Tapeats sand at a wildcat in north-central Arizona nearly six miles south of the town of Cameron (RMRR 10-23-03).

The 1 Babbitt, sw nw 15-27n-9e, east-central Coconino County, is being tested through perforations at 3170-3480 and 3524-34 ft in Tapeats. Further details are not yet

available.

The prospect was set up as a 7000-ft test to Precambrian and drilled by Key Energy Services' Rig #54 to a total depth of 4350 ft and plugged back to 3775 ft.

Williams' wildcat is approximately 130 miles southwest of the nearest production, at fields in the Four Corners region. Upper Valley field, a Kaibab oil pool in southern Utah, is about 135 miles to the north.

Subject: Babbitt No. 1

From: Steve Rauzi <Steve.Rauzi@azgs.az.gov>

Date: Tue, 06 Jan 2004 09:59:51 -0700

To: Matt Swierc <mswierc@claytonwilliams.com>

914

Matt,

Happy new year. I was sure hoping that your well was going to be the discovery we need in Arizona.

I have Sundrys on the well through Friday, December 19. I still need Sundrys through the final plugging of the hole, plugging report, completion report, and the water well acceptance form from Babbitt Ranches.

Steve

V. 76, no. 236

914

Yates preparing to drill remote Tucumcari Basin wildcat

Yates Petroleum Corp, Artesia, New Mexico, has moved in Midland-based Adobe Drilling's Rig #2 to drill a proposed 9000-ft test to Precambrian in a non-producing area of northeastern New Mexico approximately 16 miles southwest of Tucumcari (RMRR 10-10-03).

The 1 Caree-BDL-State-Com, ne ne 26-9n-28e, western Quay County, will evaluate the gas potential of Pennsylvanian zones. It's about 12 miles southeast of a new Pennsylvanian gas pool being developed by CKG Energy in 10n-27e (RMRR 2-20, 3-6 & 4-2-03). Three wells in that area have flowed gas at rates of 3-6 million cu ft daily during tests of Pennsylvanian zones. At last report, CKG's 1 Anna Katheryn, nw sw 19-10n-27e, was being tested through perforations at 6823-70 and 6913-20 ft.

In an area of the Tucumcari Basin 14-15 miles northeast of the new Yates wildcat, CKG this summer drilled and cased two remote wildcats—the 1 Walker, se sw 11-10n-30e, and 2 Walker, se se 11-10n-30e (RMRR 7-25 & 8-28-03). The 1

Clayton Williams preparing to test Coconino County Arizona wildcat

MIDLAND INDEPENDENT Clayton Williams Energy Inc has set seven-inch casing to a depth of 3775 ft for a completion attempt at a wildcat in north-central Arizona nearly six miles south of the town of Cameron.

The 1 Babbitt, sw nw 15-27n-9e, east-central Coconino County, was set up as a 7000-ft test to Precambrian (RMRR 10-23-03) and drilled by Key Energy Services' Rig #54 to a total depth of 4350 ft and plugged back to 3775 ft. At last report, Clayton Williams was preparing to perforate and test the well. Further details are not yet available.

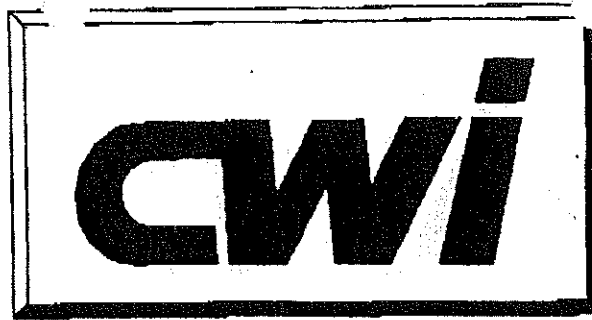
The nearest production is approximately 130 miles to the northeast, at fields in the Four Corners region. Upper Valley field, a Kaibab oil pool in southern Utah, is about 135 miles to the north.

The prospect is three quarters of a mile north-northeast of a 3624-ft dry hole completed in 1949 at the Lockhart Brothers 1 Babbitt-Bar in ne ne 21-27n-9e. That wildcat was cored between 2042 and total depth. Formation tops, measured from a kelly bushing elevation of 5106 ft, include Mississippian "C" at 2715 ft, Martin 2930, Bright Angel 3378, Tapeats 3402 and granite at 3622 ft.

Walker was drilled to a total depth of 7508 ft; the 2 Walker was set up as an 8000-ft probe. No details have been disclosed.

In the township north of the Yates project, Coulthurst Management & Investments Inc earlier this year set production casing to 7538 ft,

total depth, at a Tucumcari Basin prospect approximately 11 miles west-southwest of Tucumcari (RMRR 6-27-03). Coulthurst's 1 Wilson, ne ne 8-10n-28e, was drilled nearly eight miles east-northeast of CKG's field. Further details are not yet available.



CLAYTON WILLIAMS ENERGY, INC.
Six Desta Drive, Suite 3000
Midland, Texas 79705

Fax Cover Sheet

12/01/03

TO: STEVE RAUZI **FAX: (520) 770-3505**
ARIZONA GEOLOGICAL SUREY

FROM: BETSY LUNA **PHONE: (432) 688-3240**
FAX: (432) 688-3225

Number of pages including cover sheet: [3]

RE: WEEKLY PROGRESS REPORTS

Steve,

I got your message. Attached are the weekly progress reports you are needing. I have forwarded your message on to Matt regarding the cement reports. Mike Stewart is supposed to be here tomorrow morning and we will get you what you need.

Hope you had a great vacation!

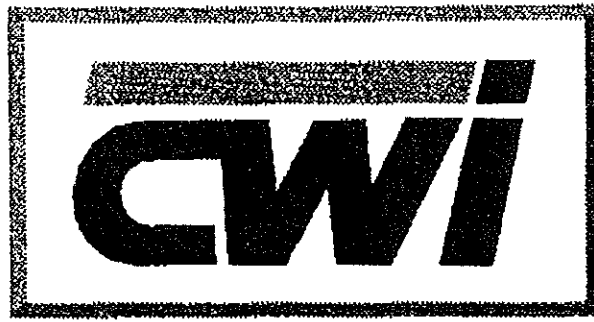
Subject: Water well acceptance form

From: Steve Rauzi <Steve.Rauzi@azgs.az.gov>

Date: Thu, 06 Nov 2003 14:47:16 -0700

To: mswierc@claytonwilliams.com

Matt, Here is a water well acceptance form for the land owner to complete, have notarized, and mail to this office if he desires to take the well over as a water well. The operator is required to plug the well back up to the base of the fresh water aquifer before turning the well over. Steve



CLAYTON WILLIAMS ENERGY, INC.

Six Desta Drive, Suite 3000

Midland, Texas 79705

Fax Cover Sheet

DATE: November 6, 2003

From

~~TO~~ →

**STEVE RAUZI
ARIZONA GEOLOGICAL SURVEY**

**OFC: (520) 770-3500
FAX: (520) 770-3505**

TO

← ~~FROM~~

MATT SWIERC

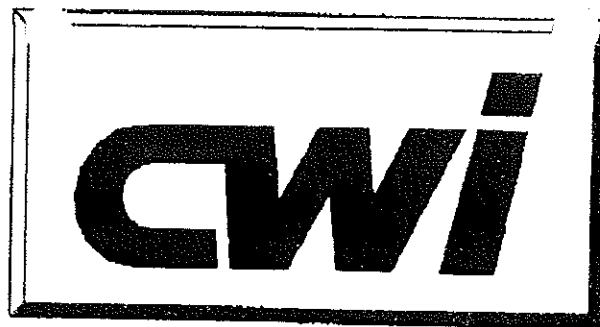
**OFC: (432) 688-3251
FAX: (432) 688-3225**

Number of pages including cover sheet: [2]

**RE: BABBITT #1
COCONINO CO., TEXAS**

Approved

P&A APPLICATION - REVISED



CLAYTON WILLIAMS ENERGY, INC.
Six Desta Drive, Suite 3000
Midland, Texas 79705

Fax Cover Sheet

11/03/03

TO: STEVE RAUZI **FAX: (520) 770-3505**
ARIZONA GEOLOGICAL SURVEY

FROM: BETSY LUNA **PHONE: (432) 688-3240**
FAX: (432) 688-3225

Number of pages including cover sheet: [2]

RE: BABBIT #1
COCONINO CO., ARIZONA

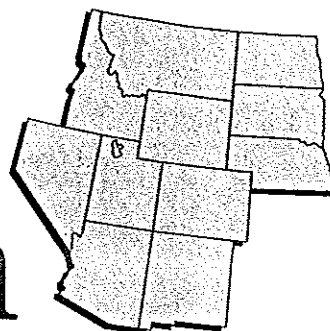
REPORT OF WEEKLY PROGRESS

Steve,

Please find attached our first weekly progress report on the Babbit #1. As you can see, not much progress. They did spud, but have not reached surface casing point (1500'). Our foreman has been instructed to contact you a minimum of 48 hours before running casing.

I will plan on faxing this Sundry Notice to you each Monday detailing the prior week's progress, unless you would prefer something different.

Rocky Mountain



914

Southeastern Edition

October 30, 2003 Volume 76 Number 212

BLM issues EA for Doty Mountain coalbed methane project



THE BUREAU of Management's Rawlins (Wyoming) Field Office (RFO) has issued the Environmental Assessment (EA) for the Doty Mountain Exploration Project proposed by Warren E&P Inc, Double Eagle Petroleum Co and Anadarko E&P Co southwest of Rawlins in southwestern Carbon County.

The Doty Mountain area lies within the Atlantic Rim EIS study area in 17n-91w and is one of nine areas or well pods that make up the Atlantic Rim Interim Drilling Project. This proposal is a part of interim drilling activity that the BLM may allow while an EIS is being prepared for the Atlantic Rim Natural Gas Project.

The Doty Mountain Interim Development Project, which is targeting Mesaverde coals, consists of constructing, drilling, completing, testing, operating and reclaiming 24 exploratory coalbed methane wells and two deep injection wells to dispose of produced water, located on both private and federal leases. The proposed project also would include related access roads, utilities, flowlines, a market access line, production facilities and a compressor station. The life of the project is estimated to be 10 to 20 years.

Drilling set to get under way at remote Arizona wildcat

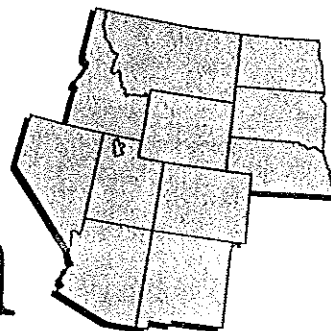
KEY ENERGY Services Inc's Rig #54 has been moved in to drill a remote north-central Arizona wildcat for Midland independent Clayton Williams Energy Inc nearly six miles south of Cameron.

The 1 Babbitt, sw nw 15-27n-9e, east-central Coconino County, is projected to 7000 ft in Precambrian (RMRR 10-23-03). It's approximately 130 miles southwest of fields in the Four Corners region and 135 miles south of Upper Valley field, a Kaibab oil pool in southern Utah.

Of the 24 proposed well locations, 16 would be located on surface ownership lands administered by the RFO and would develop federal minerals. The other eight proposed wells would develop fee minerals on

(Continued on Page 12)

Rocky Mountain



914

Southeastern Edition

October 23, 2003 Volume 76 Number 207

Arizona to get rare wildcat

MIDLAND INDEPENDENT Clayton Williams Energy Inc has staked a 7000-ft test to Precambrian in north-central Arizona nearly six

miles south of the town of Cameron.

A Key Energy Services Inc rig will drill the 1 Babbitt in sw nw 15-27n-9e, east-central

Coconino County. Ground elevation at the site is 5068 ft. The new venture is within a

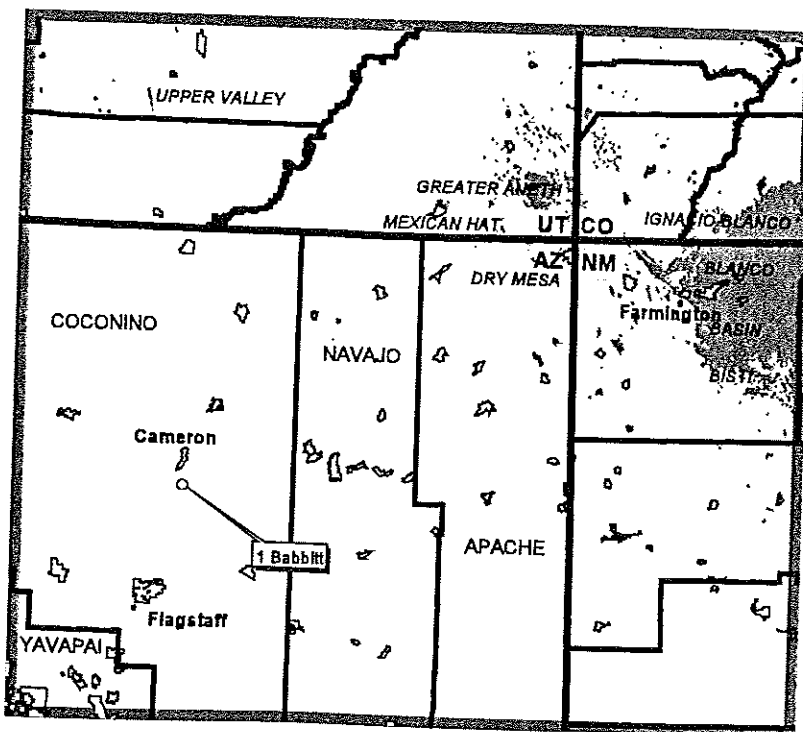
(Continued on Page 6)

FERC gives preliminary approval to Cheyenne Plains Pipeline

THE FEDERAL Energy Regulatory Commission has given preliminary approval to a 380-mile interstate natural gas pipeline proposed by an El Paso Corp unit between northern Colorado and southwestern Kansas.

Cheyenne Plains Gas Pipeline Co, a subsidiary of El Paso and an affiliate of Colorado Interstate Gas Co (CIG), is

(Continued on Page 8)



(Arizona, from Page 1)

mile generally north of two dry holes. In 1948, Barron-Steele Co completed the 1 Babbitt-Bar, sw sw 15-27n-9e, as a 2165-ft dry hole. Sample tops at that wildcat include Coconino at 340 ft and Hermit shale at 1740 ft.

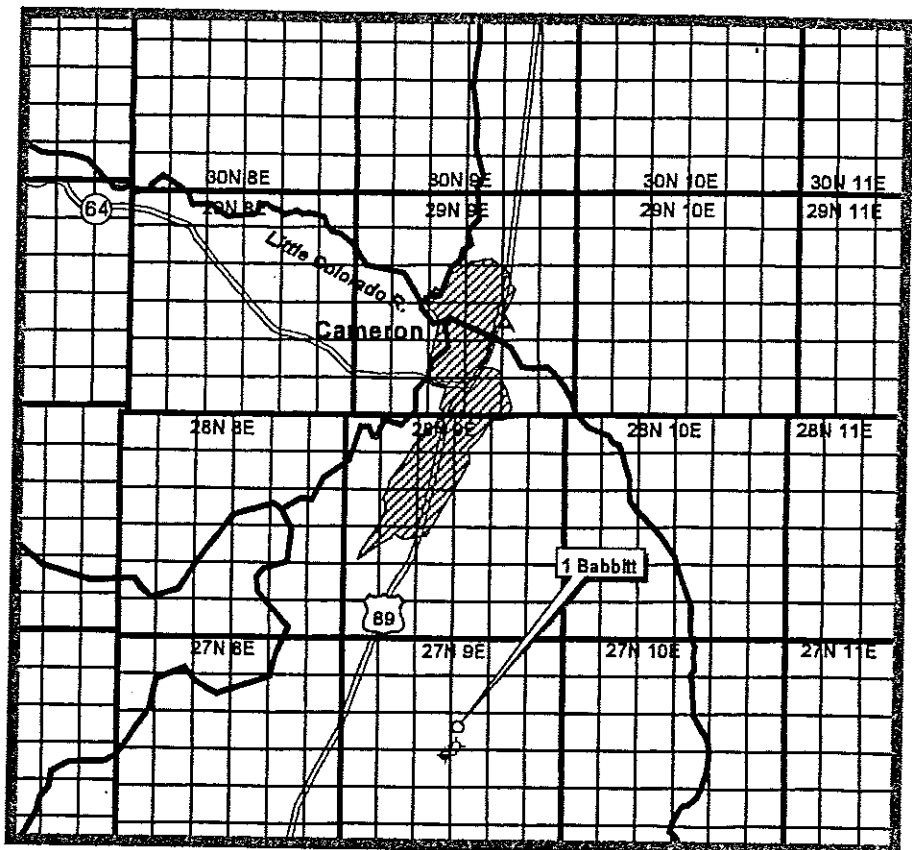
In 1949, Lockhart Brothers completed a wildcat (also designated the 1 Babbitt-Bar) in ne ne 21-27n-9e as a 3624-ft dry hole. This well was cored between 2042 and total depth. Formation tops, measured from a kelly bushing elevation of 5106 ft, include Mississippian "C" at 2715 ft, Martin 2930, Bright Angel 3378, Tapeats 3402 and granite at 3622 ft.

The closest drilling to comparable depths is approximately 38 miles to the east-northeast, at a 6944-ft dry hole completed in 1968 by Pennzoil Co at the 1-11 Hopi in nw nw 11-29n-14e. At that wildcat, a drillstem test at 6410-43 ft recovered 45 ft of mud; a drillstem test conducted between 6768 ft and total depth recovered 700 ft of water cut mud and 1190 ft of salt water. Log tops, measured from a 5650-ft kelly bushing elevation, include Moenkopi at 2970 ft, Coconino 3248, Supai

4709, Naco 5570, Redwall 5984, Temple Butte 6313, Cambrian 6615, Granite Wash 6843 and granite at 6868 ft.

The nearest production is

approximately 130 miles to the northeast, at fields in the Four Corners region. Upper Valley field, a Kaibab oil pool in southern Utah, is about 135 miles to the north.

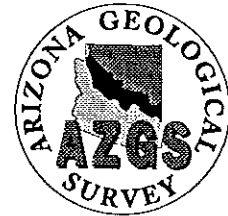




Janet Napolitano
Governor

State of Arizona
Arizona Geological Survey

416 W. Congress, Suite 100
Tucson, Arizona 85701
(520) 770-3500
www.azgs.az.gov



Larry D. Fellows
Director and State Geologist

October 17, 2003

914

Mr. John E. Holmes
Coconino County Manager
219 E. Cherry
Flagstaff, AZ 86001

Re: Clayton Williams Energy #1 Babbitt,
SW NW Sec. 15, T. 27 N., R. 9 E., Coconino Co., State Permit #914

Dear Mr. Holmes:

I have enclosed a copy of an approved drilling application for the referenced well. It is the Arizona Oil and Gas Conservation Commission's policy to inform county government about proposed exploration and stratigraphic drilling.

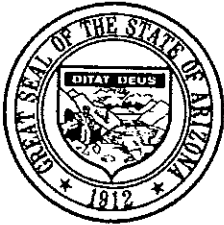
The Commission issues a permit to drill under A.R.S. § 27-513. It approves an application to drill after a well is determined to be in compliance with applicable statutes (A.R.S. § 27-516) and rules (12 A.A.C. 7), which were promulgated to safeguard the public health and safety and protect the environment and surface and subsurface resources.

Sincerely,

Steven L. Rauzi
Oil and Gas Administrator

Enclosure

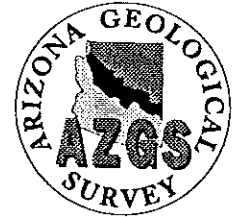
c J. Dale Nations, Chairman, Oil and Gas Conservation Commission
Larry D. Fellows, Director and State Geologist



Janet Napolitano
Governor

State of Arizona
Arizona Geological Survey

416 W. Congress, Suite 100
Tucson, Arizona 85701
(520) 770-3500
www.azgs.az.gov



Larry D. Fellows
Director and State Geologist

October 16, 2003

Mr. Matt Swierc
Clayton Williams Energy, Inc.
6 Desta Drive, Suite 3000
Midland TX 79705

914

Re: Clayton Williams Energy #1 Babbitt,
SW NW Sec. 15, T. 27 N., R. 9 E., Coconino Co., State Permit #914

Dear Mr. Swierc:

I have attached an approved duplicate original application to drill and performance bond for the referenced well. Also enclosed is Permit to Drill No. 914 and filing-fee receipt No. 3118.

The permit is issued on the condition that you conduct operations in compliance with all applicable rules and that you notify me at least 24 to 48 hours before you:

- 1) move in the drilling rig and commence drilling operations;
- 2) run and cement surface casing; and
- 3) nipple up and test the BOPE before drilling out of the surface casing.

A sign at the well site is required under rule R12-7-106. Drilling samples and other well data and information are required under rule R12-7-121.

Sincerely,

Steven L. Rauzi
Oil & Gas Administrator

Enclosures



CLAYTON WILLIAMS ENERGY, INC.

October 14, 2003

Via Federal Express Overnight Service

914

Mr. Steven L. Rauzi
Oil & Gas Administrator
STATE OF ARIZONA
Arizona Geological Survey
416 W. Congress, Suite 100
Tucson, Arizona 85701

Re: Babbit No. 1 Well
Coconino County, Arizona
Sec. 15, T27N, R9E, G. & S.R. Meridian

Dear Steve:

Please find enclosed the following as required by the State of Arizona for the permitting of the above captioned well.

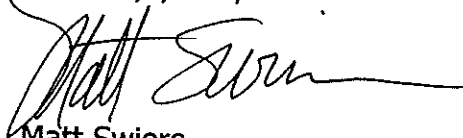
- Organization Report
- Performance Bond (2 copies)
- Application for Permit to Drill (2 copies)
- Certified Location Plat
- Detailed Drilling Program
- \$25 Application Fee

As you are aware, this location is very remote to the nearest oil field infrastructure. Therefore, service for this operation is not only expensive but sometimes hard to get. It appears that a drilling rig will be available around the first week of November to move to this well. Other than this rig for this time period, we have no other firm options for a drilling rig at this time. We are hoping that this application can be expedited and we can have a permit to drill to meet this time frame.

914

I appreciate all the help you've given us. Should you require anything further,
please contact me at 432-688-3251. My e-mail address is
mswierc@claytonwilliams.com.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Matt Swierc", with a long horizontal flourish extending to the right.

Matt Swierc
Production Superintendent

Enclosures

FAX TRANSMISSION

ARIZONA DEPARTMENT OF WATER RESOURCES
WATER RESOURCES INFORMATION CENTRAL
500 N THIRD ST
PHOENIX, ARIZONA 85004
Fax: 602-417-2488 Voice: 602-417-2485

914

Name **STEVE ROUS**
AZ GEOLOGICAL SURVEY

FROM: **BARB SIMS**

Fax #: **520-770-3505**

FAX# **602-417-2488**

Phone **520-770-3500**

PHONE **602-417-2485**

Subject: **REGISTERED WELLS REPORT**

Comments:

Steve,

This is the Wells Report for T 27N, R 9E, Sections 15,16,21,22

T 27 N 17 9 E Sec. 15, 16, 21, 22

TOTAL P. 02

LEGAL	REC. NO.	COMPLETION DATE	OWNER	WELL TYPE	W DEP	CAS DP	DIAM	WTR LVL	GPM	LOG	CRT	CXL
1 A(27-9)15 CCC	55-613899		C O BAR LIVESTOCK,	EXEMPT	2165	0	12	1315	8			
2 A(27-9)21 AAA	55-613900		C O BAR LIVESTOCK,	EXEMPT	3624	0	12	0	8			
3 COMM.	2											

No wells in Sec. 16, 22.

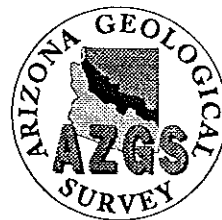
Lo c/c hert



Janet Napolitano
Governor

State of Arizona
Arizona Geological Survey

416 W. Congress, Suite 100
Tucson, Arizona 85701
(520) 770-3500
www.azgs.az.gov



Larry D. Fellows
Director and State Geologist

May 1, 2003

Mr. Matt Swierc
Clayton Williams Energy, Inc.
6 Desta Drive, Suite 3000
Midland TX 79705

914

Dear Mr. Swierc:

I have enclosed the following forms for permitting, drilling, and completing oil or gas wells in Arizona. Legible copies of the forms are acceptable with an original signature. Pertinent rules are listed with the forms. The rules are located in Title 12, Chapter 7 of the Arizona Administrative Code. The Arizona Administrative Code may be viewed on the Secretary of State's web page at www.sosaz.com.

- | | |
|----------------|--|
| Form 1) | Organization Report [Rule R12-7-194] |
| Form 2) | Performance Bond [Rule R12-7-103] |
| Form 3) | Application for Permit to Drill or Reenter [Rule R12-7-104] |
| Form 4) | Completion Report [Rule R12-7-121] |
| Form 9) | Application to Plug and Abandon [Rule R12-7-126] |
| Form 10) | Plugging Record [Rule R12-7-127] |
| Form 25) | Sundry Report |

Submit Forms 1, 2, 3, a detailed drilling program, and a \$25 application fee (payable to the Arizona Geological Survey) to my attention at the letterhead address. A Permit to Drill is issued on approval. Submit Form 4 after drilling is completed. Submit Form 25 to report all other activity.

Alternatives for surety include cash (cashiers check) or a time certificate of deposit (CD) payable to **Arizona Oil and Gas Conservation Commission**. CD's must be automatically renewable, drawn on a federally insured bank physically doing business in Arizona, and sent to this office with an assignment form properly filled out. Irrevocable letters of credit are not accepted. A state bond is not required for wells drilled on Indian or public lands if evidence of bond posted with the BIA or BLM is submitted with the application to drill.

Sincerely,

Steven L. Rauzi
Oil & Gas Administrator

Enclosures